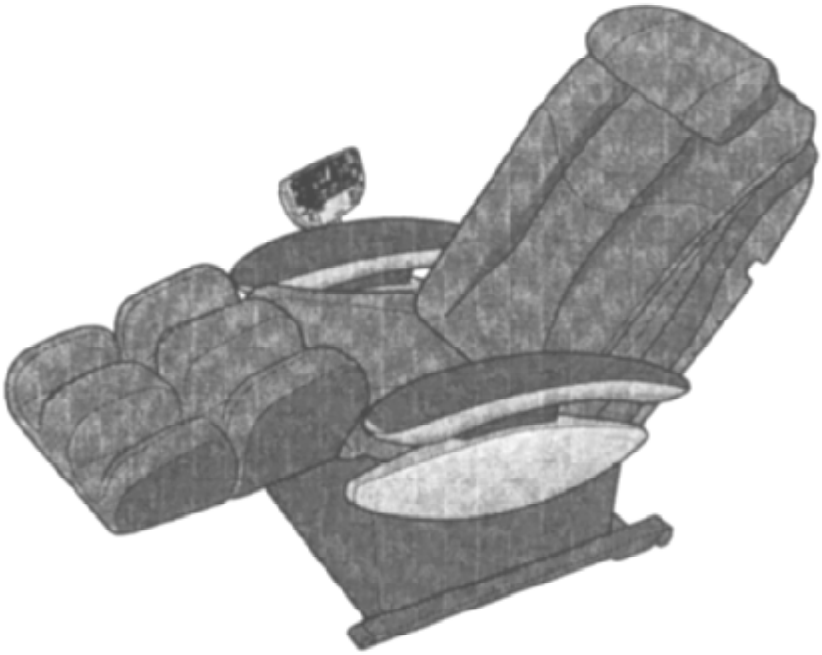
ORDER NO.HPD0401U11C1
E11

Service Manual

MASSAGE LOUNGER

EP3203-U1



SPECIFICATIONS

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Power Supply:	AC120V 60Hz	
Power Consumption:	200W (Approx. 5W in Standby mode with the control panel turned off or stopped)	
Upper Body Massage		
Massage Area (Up-Down):	Approx. 30in. (76cm) (The massage heads move a total of approx. 64cm)	
Massage Area (Left-Right):	Distance between Massage Heads during Operation	
	Neck, Shoulder, Lower Back:	Approx. 2.0 – 8.3in. (5 – 21cm)
	Back:	Approx. 2.0 – 5.9in. (5 – 15cm)
Massage Area (Forward-Back):	Approx. 3.9in. (10cm)	
Up-Down Movement Speed:	Approx. 25 – 90 sec. return.	
Massage Speed:	Knead A, B:	Approx. 9 – 15 cycles/min.
	Tap:	Approx. 200 – 700 sec. (one way)
Lateral/Vertical Travel:	Lateral Travel:	Approx. 2.0in. (5cm) left-right auto return
	Vertical Travel (Long):	Approx. 30in. (76cm) up-down auto return
	Vertical Travel (Short):	Approx. 4in. (10cm) up-down auto return
Massage Width:	Rolling, Vertical Movement:	Approx. 2.0 – 5.9in. (5 – 15cm)
	Other than the above:	Same as massage area (left-right).
Lower Body Massage		
Air Pressure:	Strong:	Approx. 22kPa
	Medium:	Approx. 16kPa
	Weak:	Approx. 10kPa
Reclining Angle:	Backrest:	Approx. 120° – 170°
	Legrest:	Approx. -5° – 85°
Automatic Shut-Off:	Approx. 15 min. for both upper and lower body	
Dimensions:		
When not reclined. (H × W × D)	45.3 × 30.3 × 49.2in. (115 × 77 × 125cm)	
When reclined. (H × W × D)	28.3 × 30.3 × 72.8in. (72 × 77 × 185cm)	
Weight of Unit:	Approx. 164lbs (74kg)	
Weight in Box:	Approx. 195lbs (88kg)	
Maximum User Weight:	264lbs (120kg)	
Minimum Distance from Wall:	16in. (40cm)	

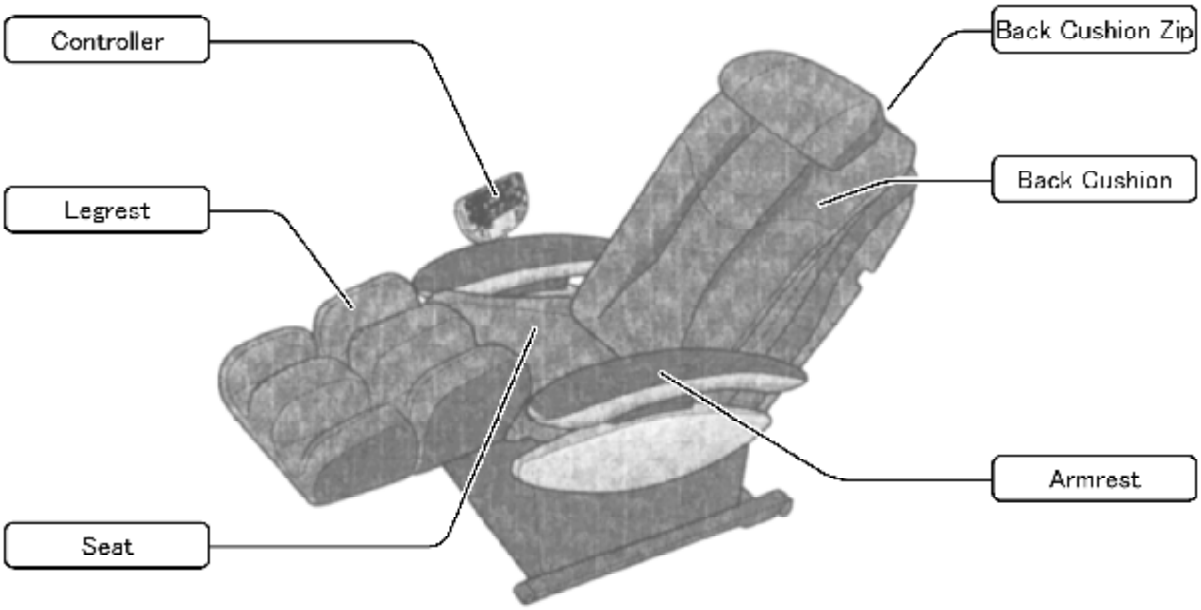
⚠ WARNING

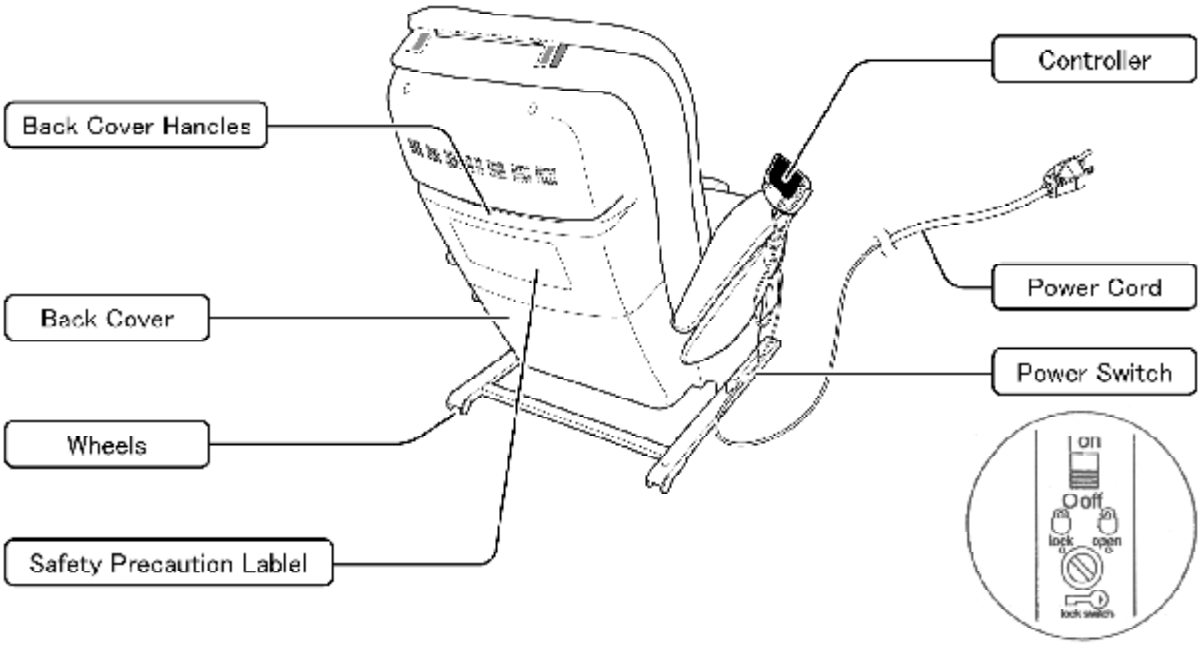
This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

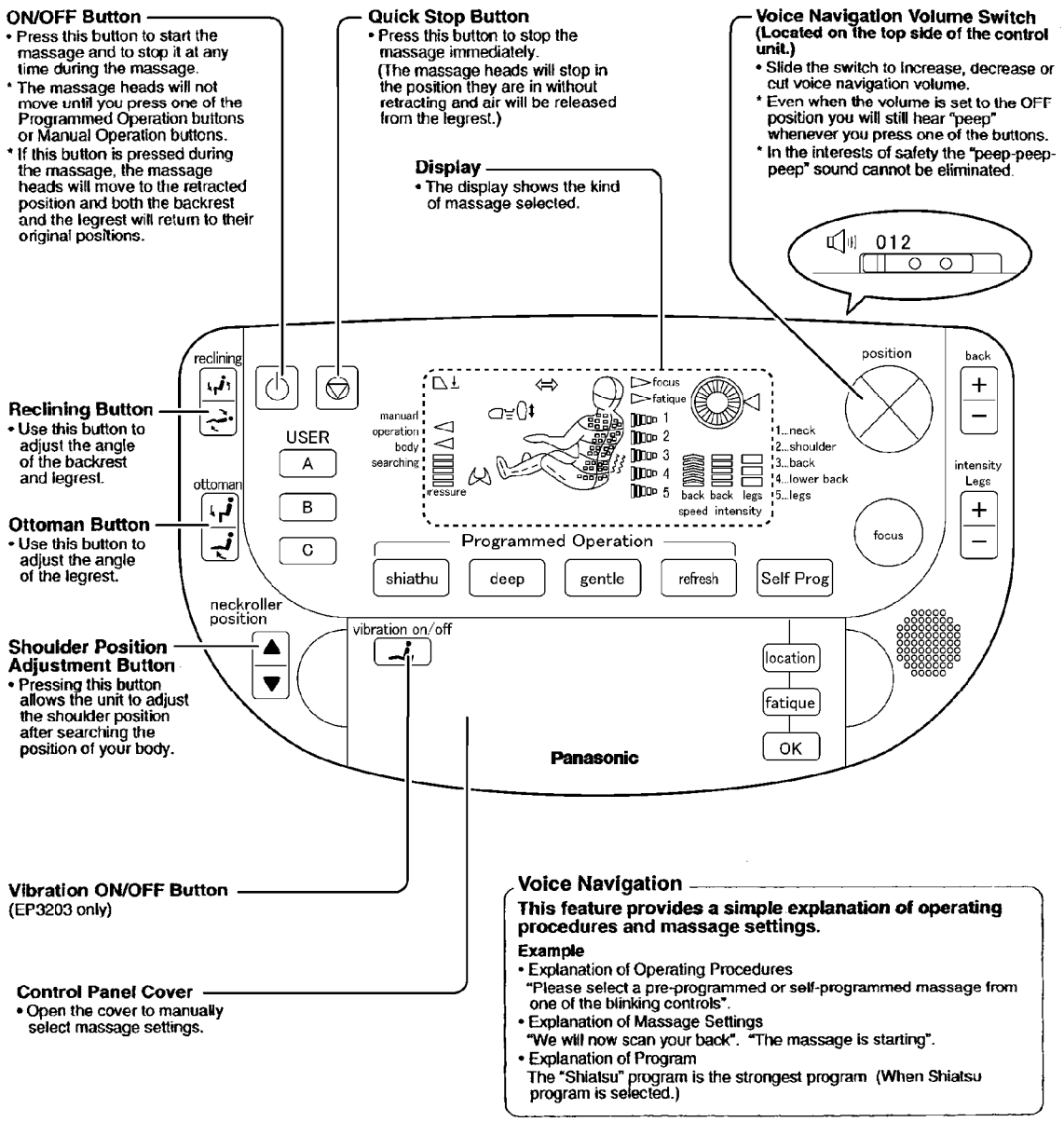
1. COMPONENTS IDENTIFICATION

1.1. Massage lounger





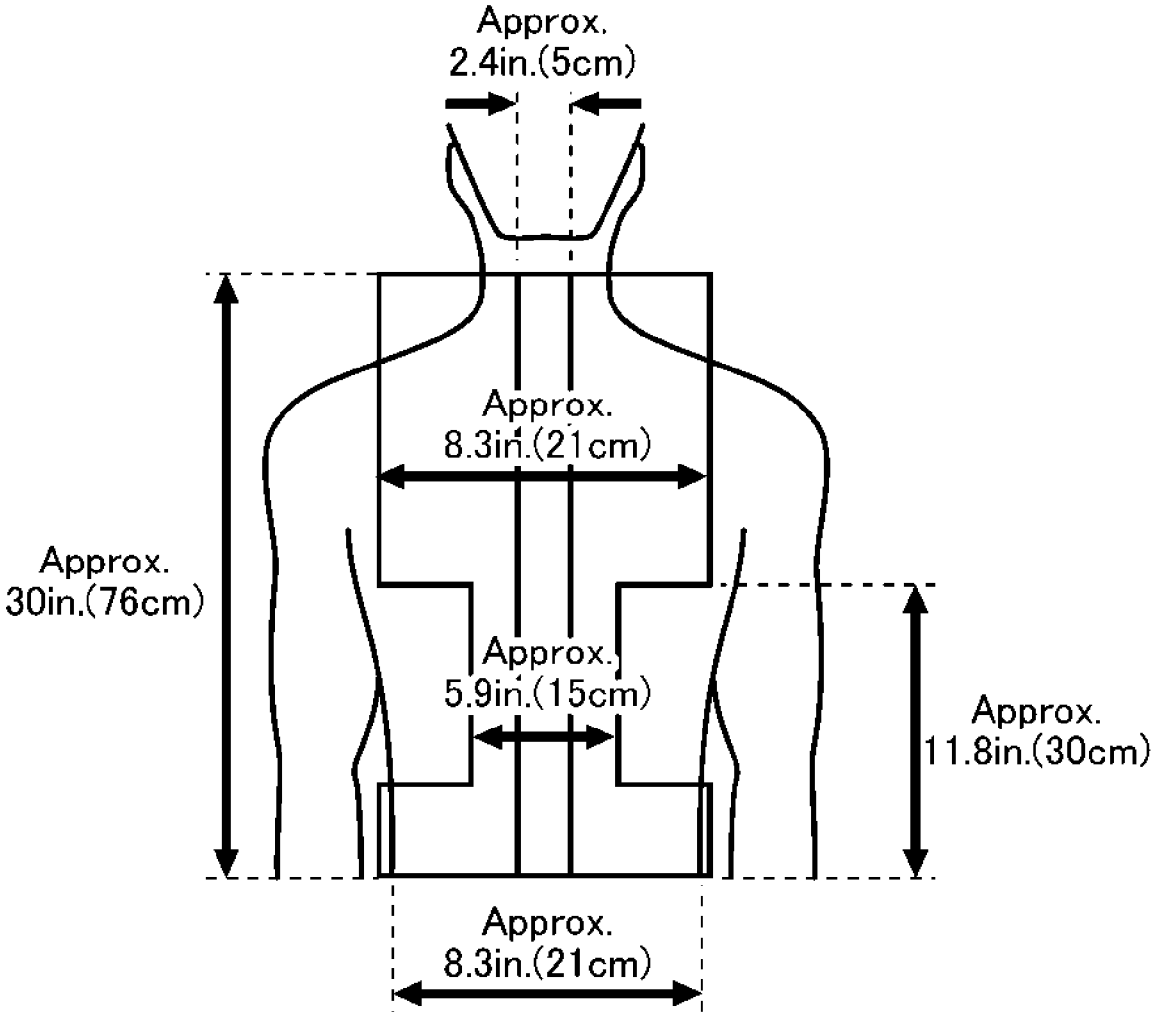
1.2. Controller


ON/OFF Button
• Press this button to start the massage and to stop it at any time during the massage.
* The massage heads will not move until you press one of the Programmed Operation buttons or Manual Operation buttons.
* If this button is pressed during the massage, the massage heads will move to the retracted position and both the backrest and the legrest will return to their original positions.
Quick Stop Button
• Press this button to stop the massage immediately.
(The massage heads will stop in the position they are in without retracting and air will be released from the legrest.)
Voice Navigation Volume Switch
(Located on the top side of the control unit.)
• Slide the switch to increase, decrease or cut voice navigation volume.
* Even when the volume is set to the OFF position you will still hear "peep" whenever you press one of the buttons.
* In the interests of safety the "peep-peep-peep" sound cannot be eliminated.
Display
• The display shows the kind of massage selected.
012
Reclining Button
• Use this button to adjust the angle of the backrest and legrest.
Ottoman Button
• Use this button to adjust the angle of the legrest.
Shoulder Position Adjustment Button
• Pressing this button allows the unit to adjust the shoulder position after searching the position of your body.
Vibration ON/OFF Button
(EP3203 only)
Control Panel Cover
• Open the cover to manually select massage settings.
reclining
ottoman
USER
A
B
C
neckroller position
vibration on/off
manuarl operation
body searching
kneading
tapping
vibration
focus
fatique
1
2
3
4
5
back speed
back intensity
legs intensity
1...neck
2...shoulder
3...back
4...lower back
5...legs
Programmed Operation
shiathu
deep
gentle
refresh
Self Prog
position
back
intensity
Legs
focus
location
fatique
OK
Panasonic
Voice Navigation
This feature provides a simple explanation of operating procedures and massage settings.
Example
• Explanation of Operating Procedures
"Please select a pre-programmed or self-programmed massage from one of the blinking controls".
• Explanation of Massage Settings
"We will now scan your back". "The massage is starting".
• Explanation of Program
The "Shiatsu" program is the strongest program (When Shiatsu program is selected.)

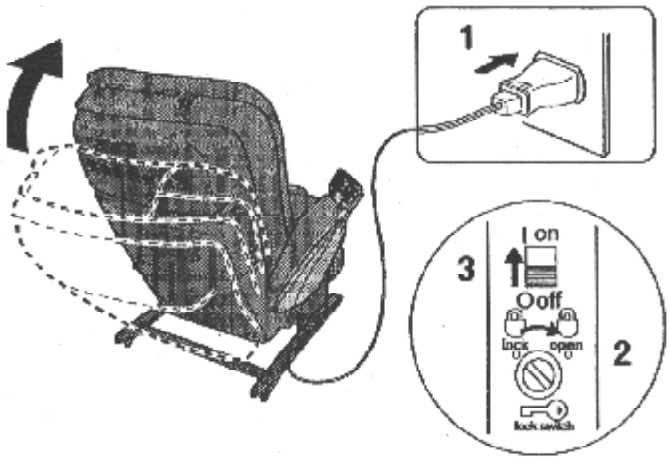
2. MASSAGE RANGE (MOVEMENT RANGE OF MASSAGE WHEELS) SHIATSU MASSAGE, SWEDISH MASSAGE, KNEADING, VIBRATING, TAPPING A, TAPPING B, TAPPING C, WHOLE BACK ROLLING, REGIONAL ROLLING

Width adjustment
Approx.50 to 210 mm (2.4in. to 8.3in.)

Intensity adjustment
Shiatsu, Swedish, Knead, vibration, Tap A, Tap B, Tap C, whole back roll, and Regional roll (from gentle to strong)
:50mm(2.4in.)-wide adjustability where massage heads push out toward body as intensity increases.



3. TURNING ON THE POWER



1. Plug the power plug into the power socket.

2. Turn the lock switch to the open position.

3. Turn on the power switch on the back of the unit.

- When the operating lock switch is pointing toward 'lock', the power switch cannot be moved to the 'on' position.

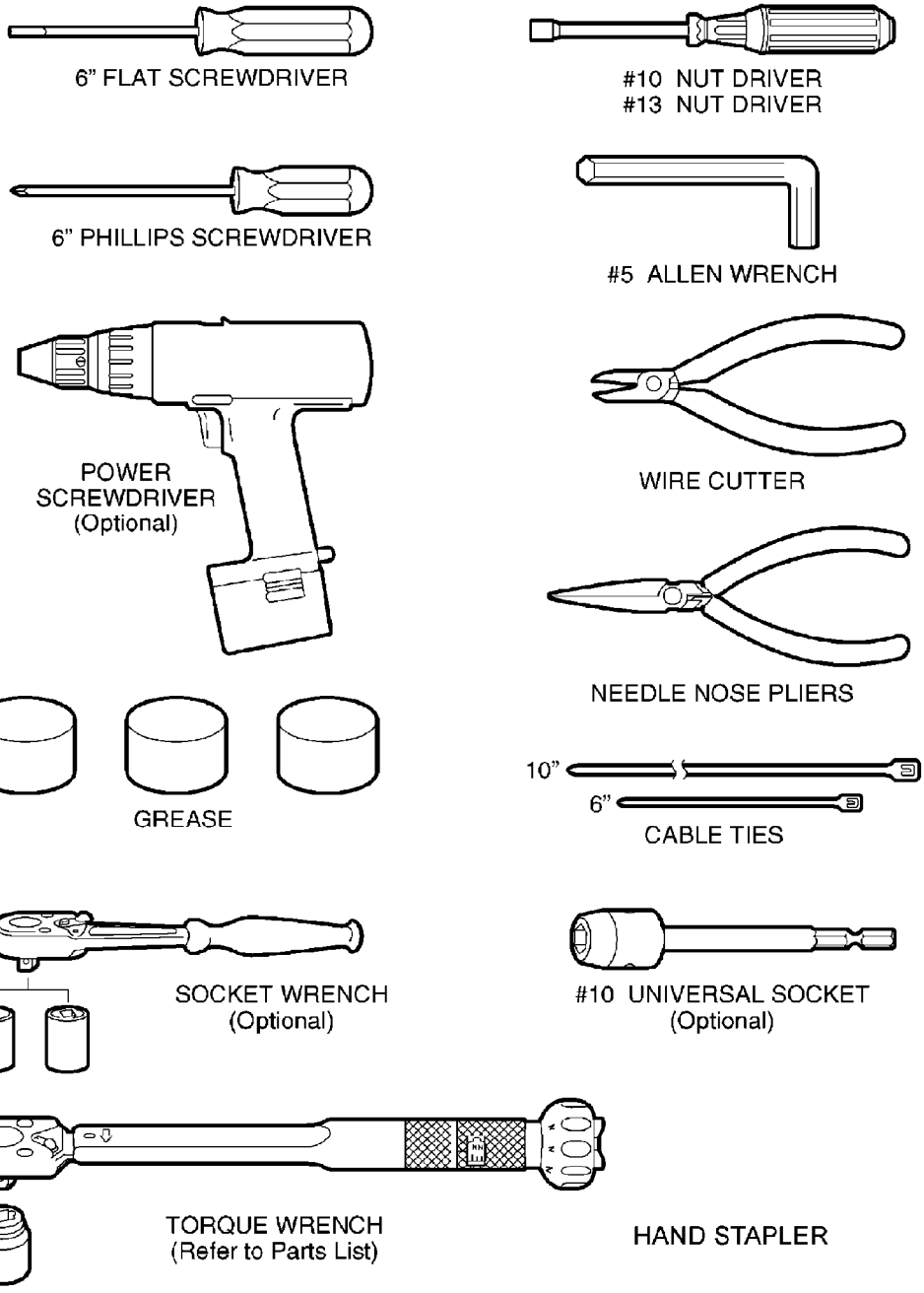
After each use.

- **Be sure to turn the power switch to 'off'.**
- **To prevent children from using this unit, lock the power switch by moving the operating lock switch to the 'lock' position.**
- **As a further caution, unplug the power cord from the power socket after each use.**

Timer

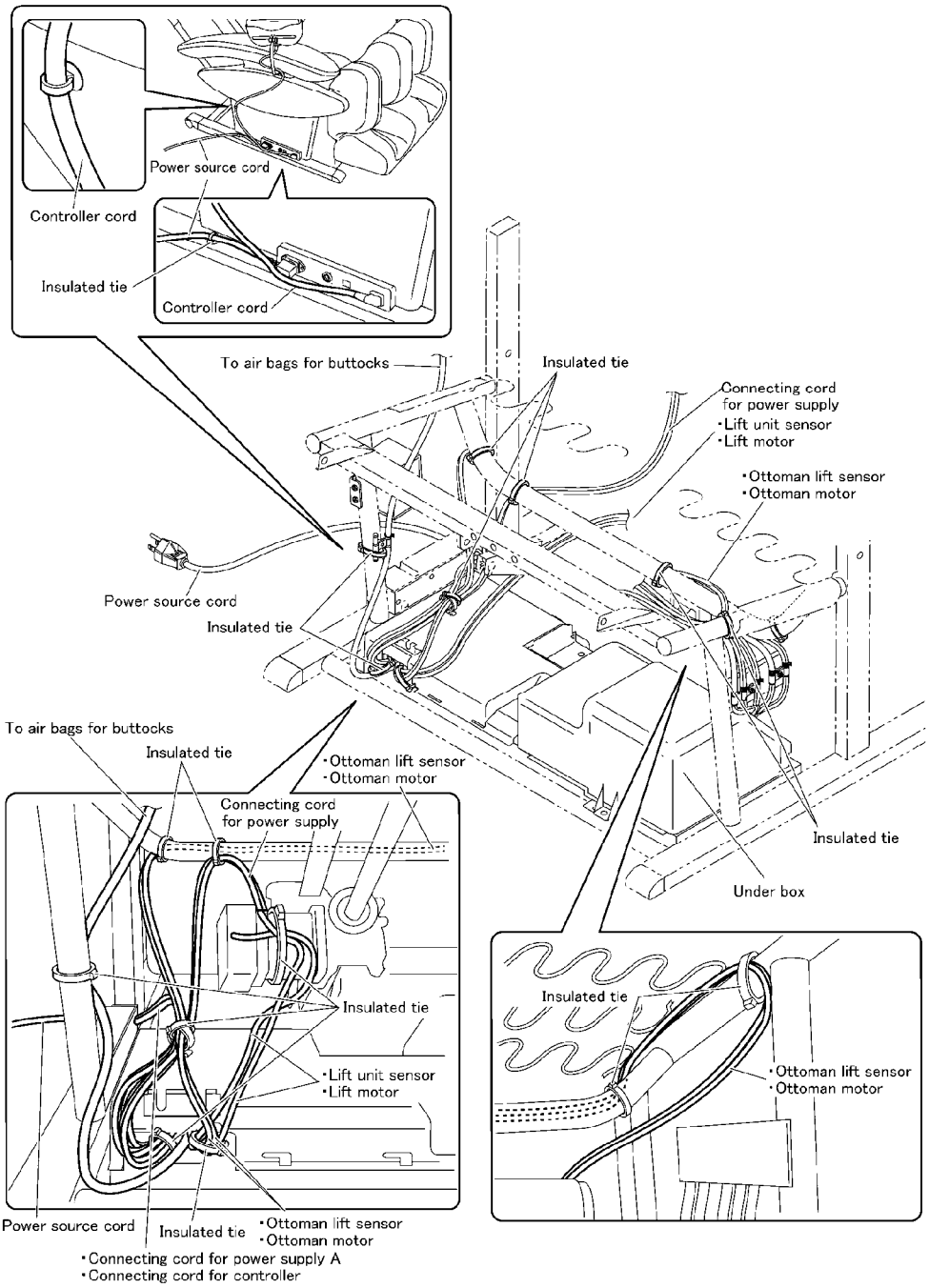
When the on/off button is pushed, a timer begins to prevent overuse. After approximately 15 minutes, time expires and the massage wheel goes into storage position.

4. REQUIRED TOOLS



5. ACTUAL WIRING DIAGRAM

5.1. Connecting cord for power source to Sub PCB



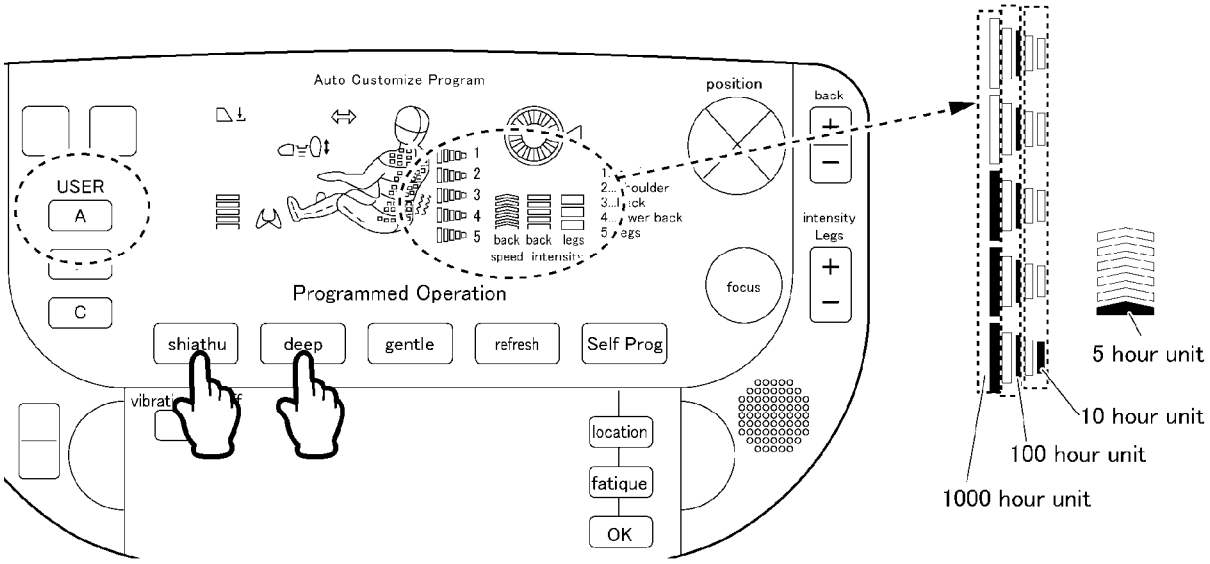
6. DISPLAY METHOD OF MASSAGE BLOCK TOTAL USE TIME AND OPERATION TIME

Adjustment of pressure sensor

First, keep the Massage mechanism block unloaded with pressure and move it upward halfway.

If the Massage mechanism block is at the highest or lowest position, you cannot arrange the pressure sensor correctly because the fabric becomes tense with pressure.

1. **While pushing On/off button and the User program button B simultaneously, turn on the power switch and continue to hold the buttons for approximately 5 seconds. Release after the Focus button lights up.**
2. **Push the Focus button and automatically it lights off.**
   Turn off the Power source switch and turn it on again, then the adjustment is finished.



Total use time & Display method

While pushing the Shiatsu button and the Deep button simultaneously, turn on the power switch and continue to hold the buttons for approximately 5 seconds. Release after the User program button A.

e.g. In the above case, 3000 + 500 + 10 + 5 = 3515 hours.

It is possible to indicate up to 5,995 hours.
If the use time is less than 5 hours, 5 hour unit does not light up. If it is less than 10 hours, one 5 hour unit lights up.

Chart for reading each function use time

Button operation	Function for reading use time	LED display for confirming function
Shiatsu B	Intensity motor	
Lateral	Width motor	
Roll	Up/down motor	
Tap	Tapping motor	
Shiatsu C	Shiatsu C pump	
Regional	Shiatsu C valve	
Vibration	Vibration	
Reclining upward	Reclining	
Reclining downward	Ottoman reclining	
Auto	Leg air operation	

7. MOTION OF THE CLUTCH AND BELT BASED ON VARIOUS MASSAGER OPERATIONS

Massager operation and belt motion

Belt / Massage operation	Intensity adjustment belt	Massage belt	Tapping belt	Up/down belt
Shiatsu, Swedish, Kneading	×	○	×	×
Kneading and rolling	×	○	×	○
Rolling	×	×	×	○
Tapping	×	×	○	×
Tapping and rolling	×	×	○	○
Width adjustment	×	○	×	×
Intensity adjustment	○	○	×	×

○ : Power is transmitted to the shaft.

× : Power is not transmitted to the shaft.

*Idling : Although the pulley is rotating, power is not transmitted to the shaft.

Massager operation and clutch motion

Clutch / Massage operation	Intensity clutch	Massage clutch	Tapping clutch	Up/down clutch
Shiatsu, Swedish, Kneading	×	○	×	×
Kneading and rolling	×	○	×	○
Rolling	×	×	×	○
Tapping	×	×	○	×
Tapping and rolling	×	×	○	○
Width adjustment	×	○	×	×
Intensity adjustment	○	×	×	×

○ : Electrically ON

× : Electrically OFF

8. CONTROL OF THE AIR-MASSAGE OPERATION

Air massage functions with the operations of the pump unit x 1pc, 3-way electromagnetic valve x 1pc, and 2-way electromagnetic valve x 2pcs.

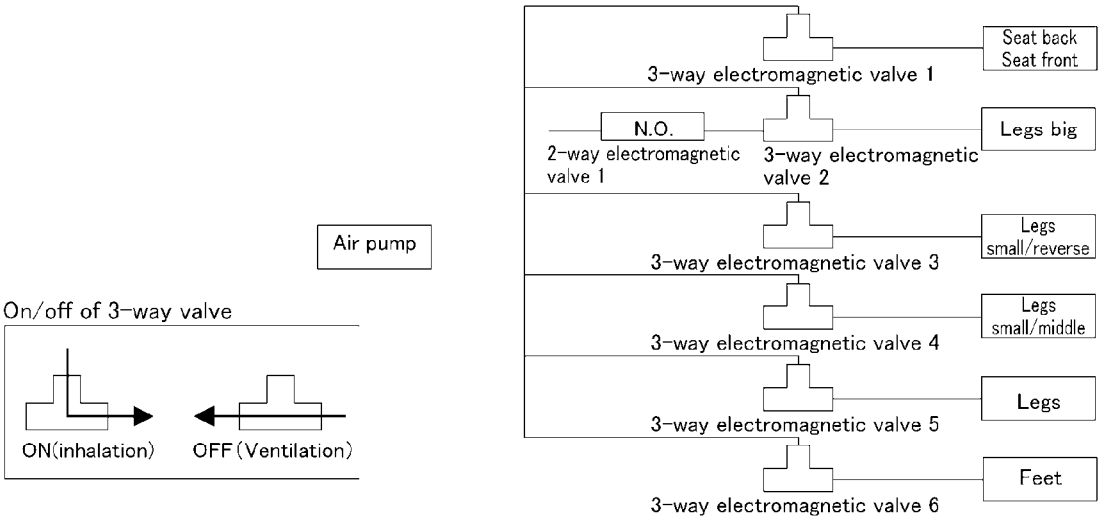
1. Air massage is operated by the pump and electromagnetic valves.

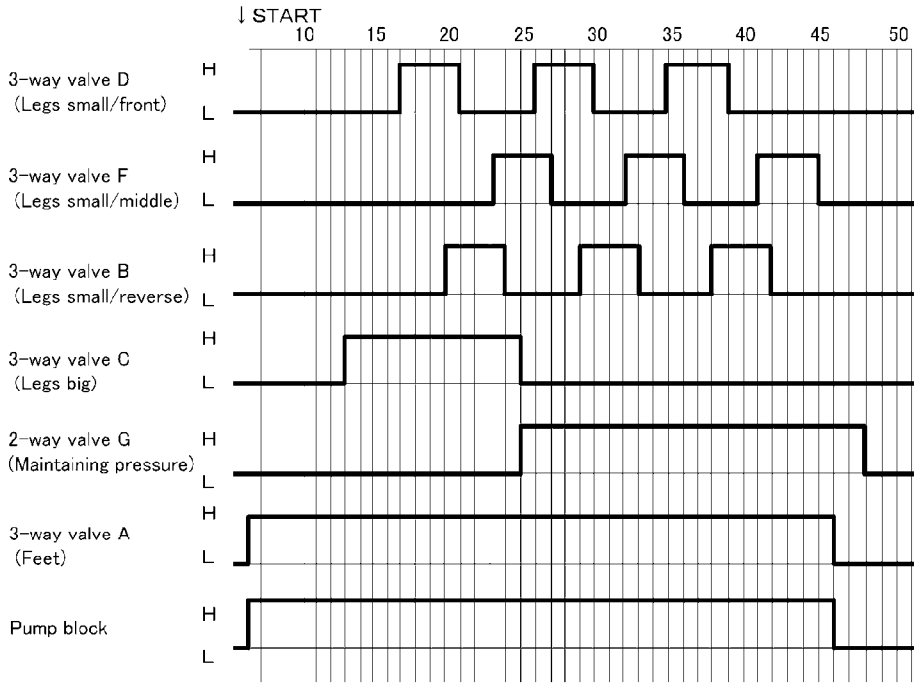
2. When not in operation, all the pump and the electromagnetic valves are in Off position.

3. When the Reclining lift motor and the Ottoman lift motor are in operation, the control of air is stopped. (Electromagnetic is Off. In ventilation.)

4. When you operate the electric reclining lift or the electric Ottoman lift while you operate On/off button or it is in waiting mode, stop the operation of the pump. (The pressure of electromagnetic valves are maintained.) And after the operation stop(retracting mode) from the retracting mode and stop mode, or after electric reclining lift or electric Ottoman lift stop in the waiting mode, air massage stops in 5 seconds.

***After the 3-way electromagnetic valve of Legs big turns Off , turn On the 2-way electromagnetic valve and maintain the pressure of Legs big.**





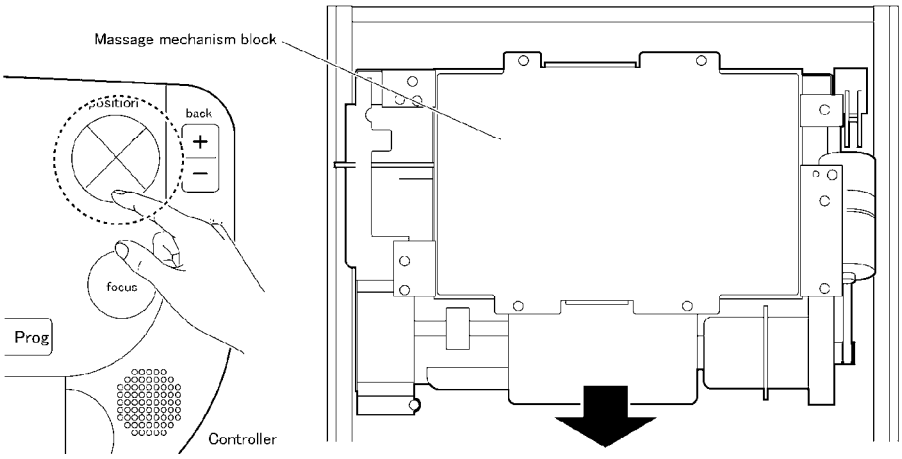
9. MASSAGER UP/DOWN SENSOR GEAR ADJUSTMENT METHOD

When the massager is removed from the chair, the position of the up/down sensor gear changes, resulting in a change of the up/down stop position.
When installing the massager on the back frame, be sure to adjust the position with the up/down detection gear.

● **Up/down sensor gear position adjustment procedure**

1. Before mounting, the massager on the back frame must be moved down to the lowest position by setting the controller manual operation MASSAGE HEAD ADJUSTMENT button to DOWN.

2. Install Rail pieces (left/right) and screw them with each three screws.



3. Make sure that the massager has been mounted horizontally by moving the massager.
***Unless the massager has been mounted horizontally, an abnormal sound or problem may occur.**

4. Move it up to the highest position (until the massager stops) by setting the controller manual operation MASSAGE HEAD ADJUSTMENT button to up.

5. Peeping into the square hole of the back frame, check the position of the massager to adjust.
***One thread of the up/down detection gear gives a stroke change of 4mm.**

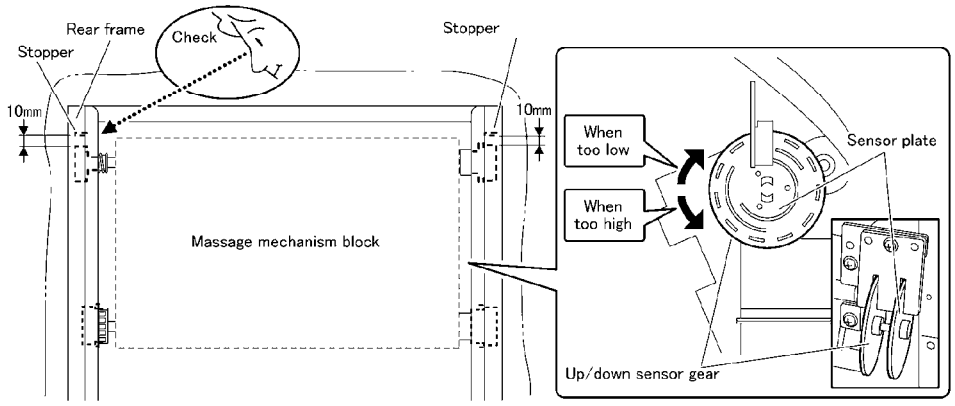
When the massager has been raised excessively : Turn the up/down sensor gear counterclockwise to adjust.

When the massager has been lowered excessively : Turn the up/down sensor gear clockwise to adjust.

***When adjusting the up/down position, hold the 'Gear' and adjust it. (Do not touch the detector board.)**

6. While adjusting the distance between the square hole and Guide roller assy. to 10mm, check by using the up/down adjustment button found on the manual operation panel of the controller.

7. Using the manual operation of the controller, conduct the rolling operation.

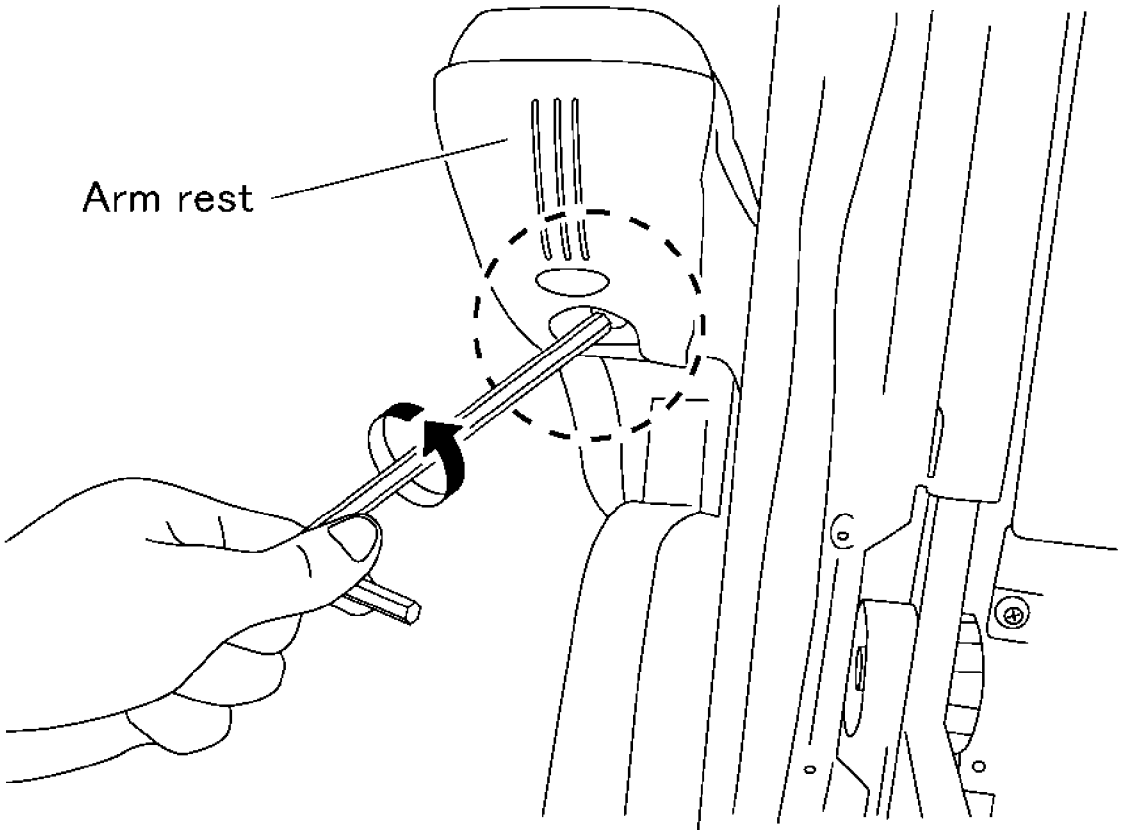


10. DISASSEMBLY AND ASSEMBLY INSTRUCTION

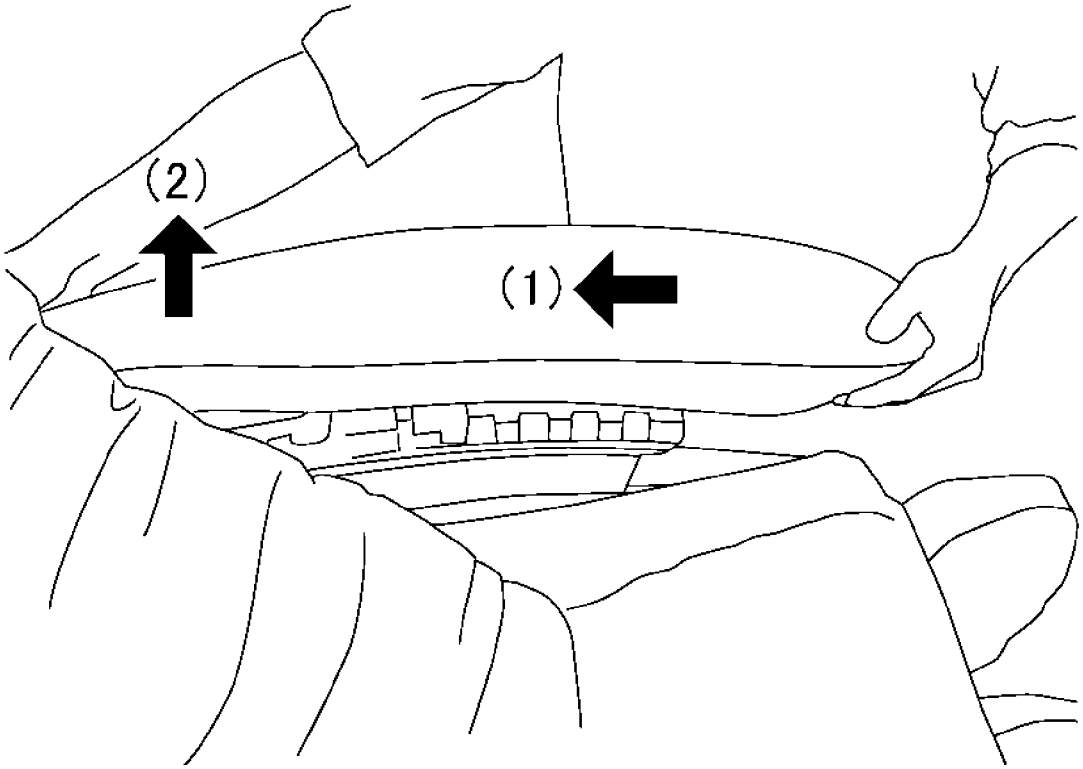
10.1. Removing the Arm rest and the Controller stand

10.1.1. Removing the Arm rest

1. Unscrew a hex screw (4mm) on the bottom of the Arm rest.

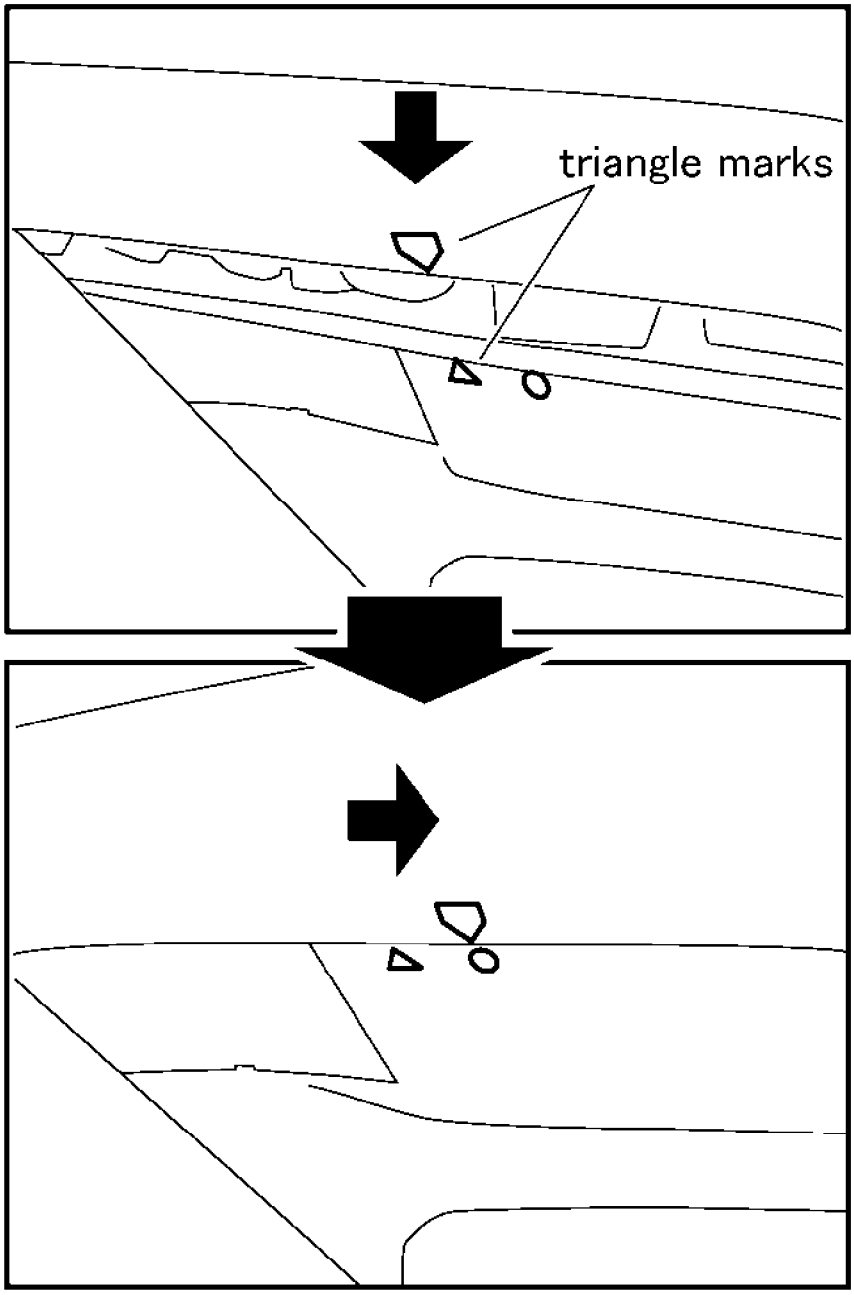


2. Pull the Arm rest backward(1) and pull it up(2) and take it away.



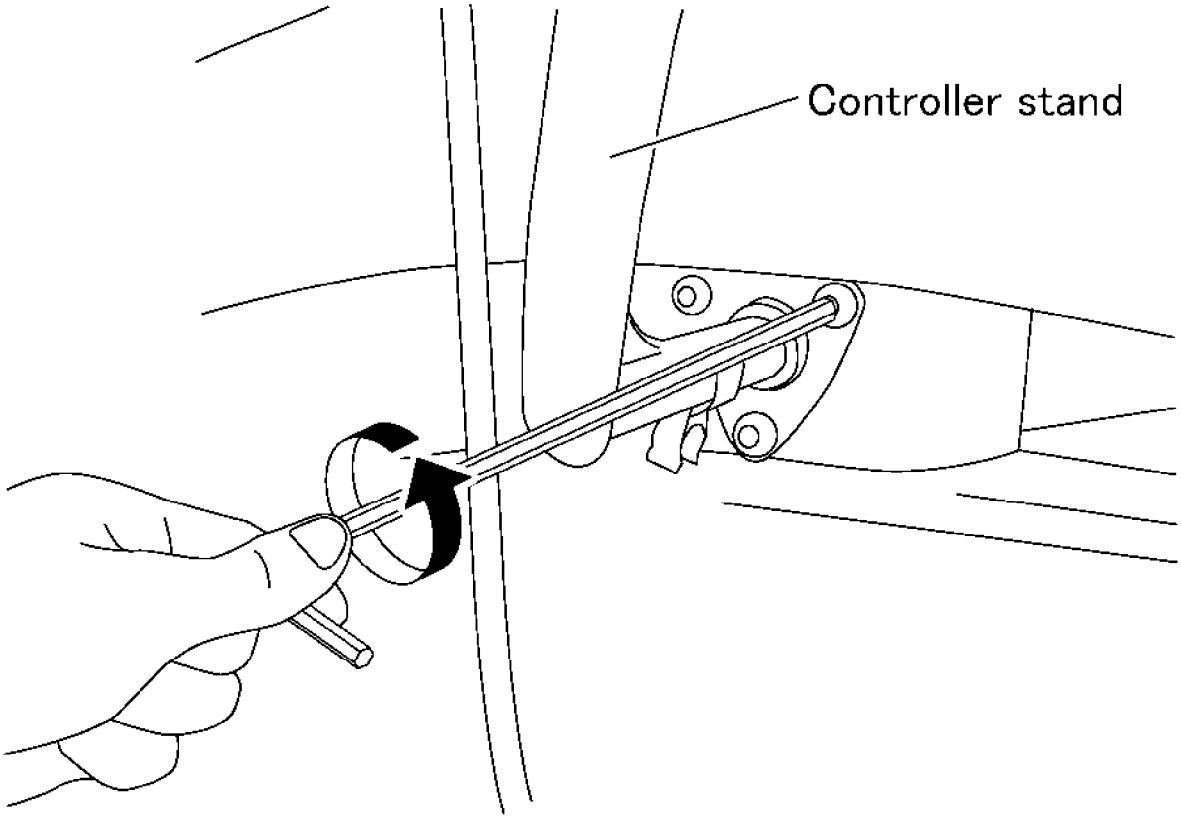
3. You can remove both Arm rests.

Tips of installing
Insert the Arm rest to the Arm rest holder so that both triangle marks meet each others, and pull the Arm rest forward to lock.



10.1.2. Removing the Controller stand

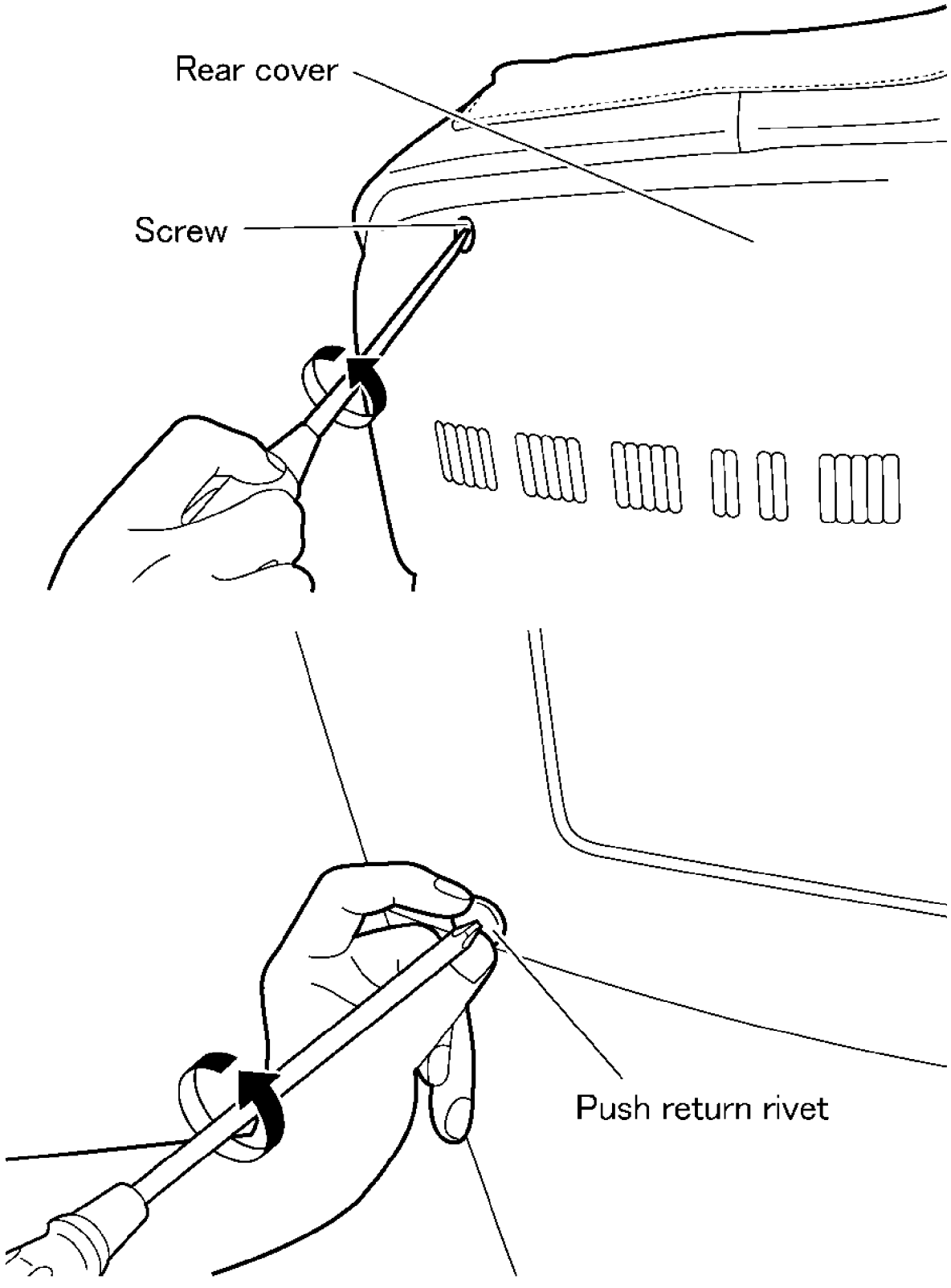
1. Take off the Controller, and unscrew three Hex screws(4mm) of the Controller stand.



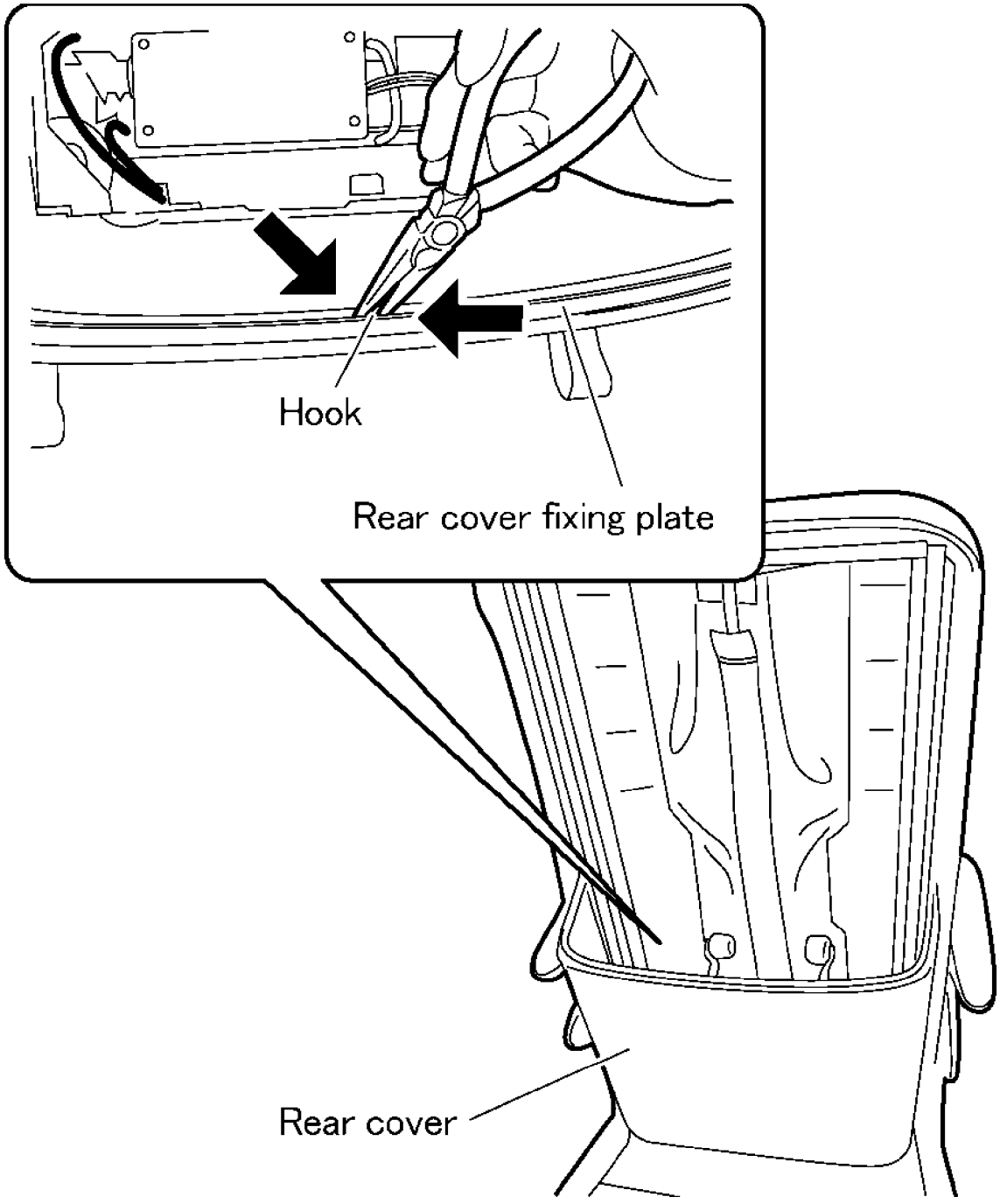
10.2. Removing the Outside covers

10.2.1. Removing the Rear cover

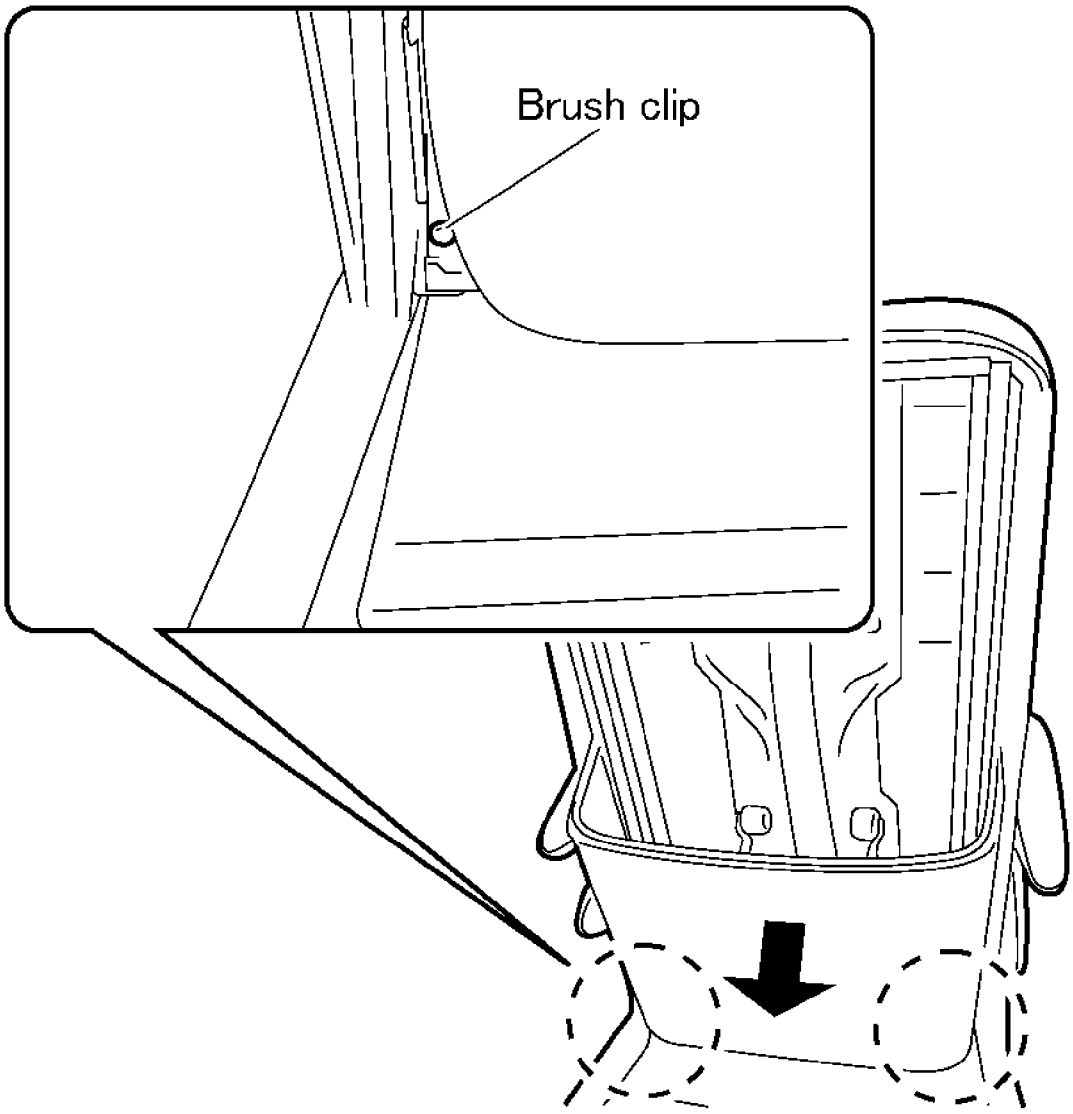
1. Unscrew two screws at the top of the Rear cover top and two Push return rivets, and pull it off.


Rear cover
Screw
Push return rivet

2. Take off the hook with nippers, which fixes the Rear cover bottom and the Rear cover fixing plate.

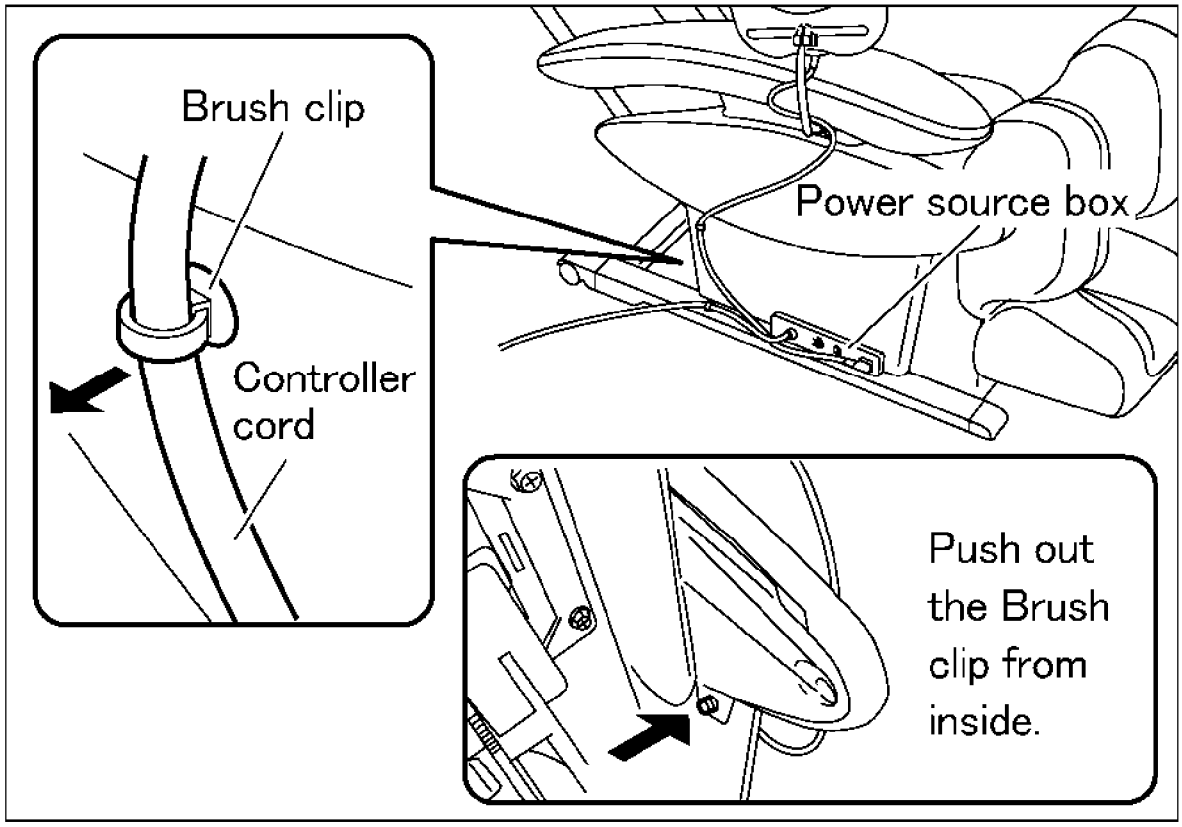


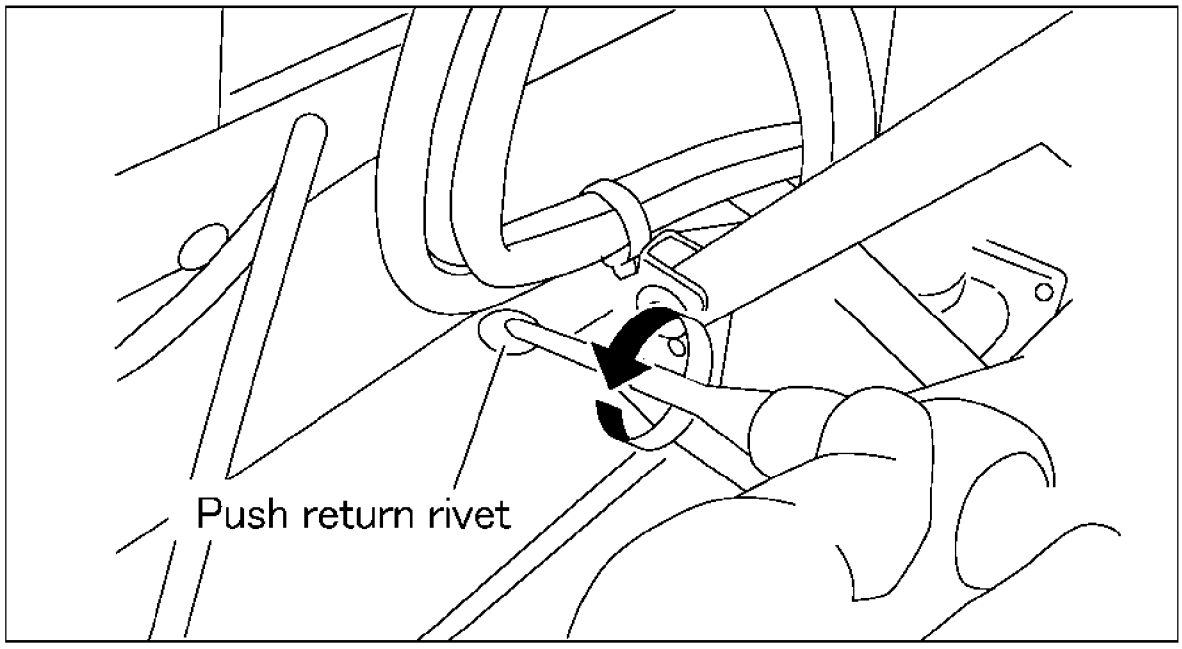
3. Take off two Brush clips on the Rear cover bottom and pull it off.

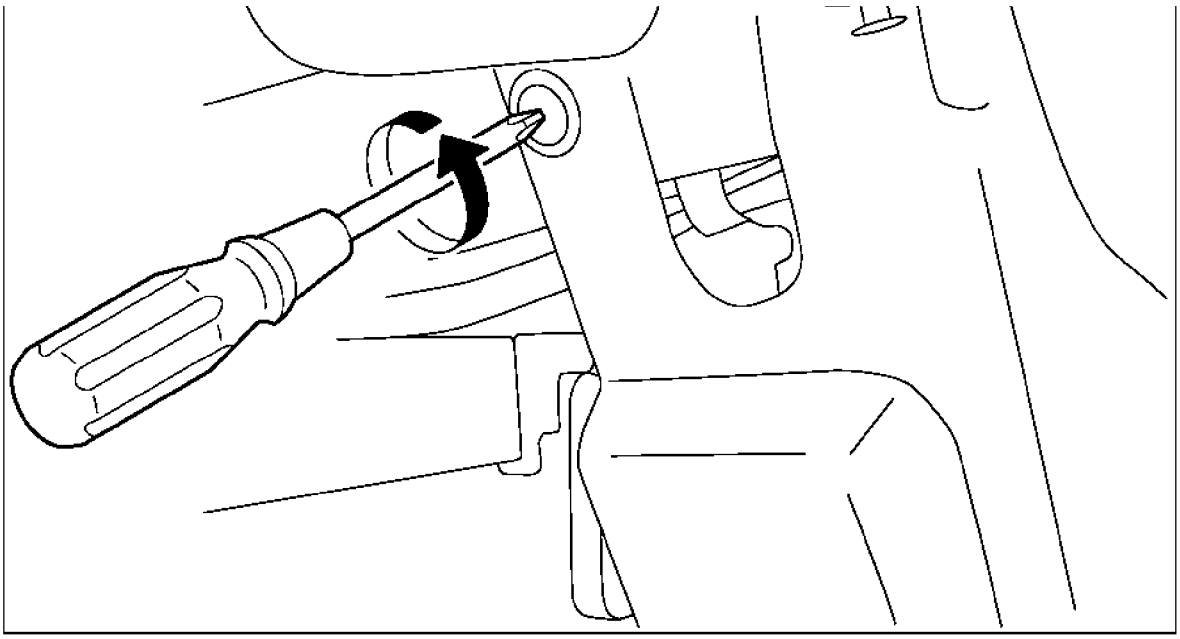


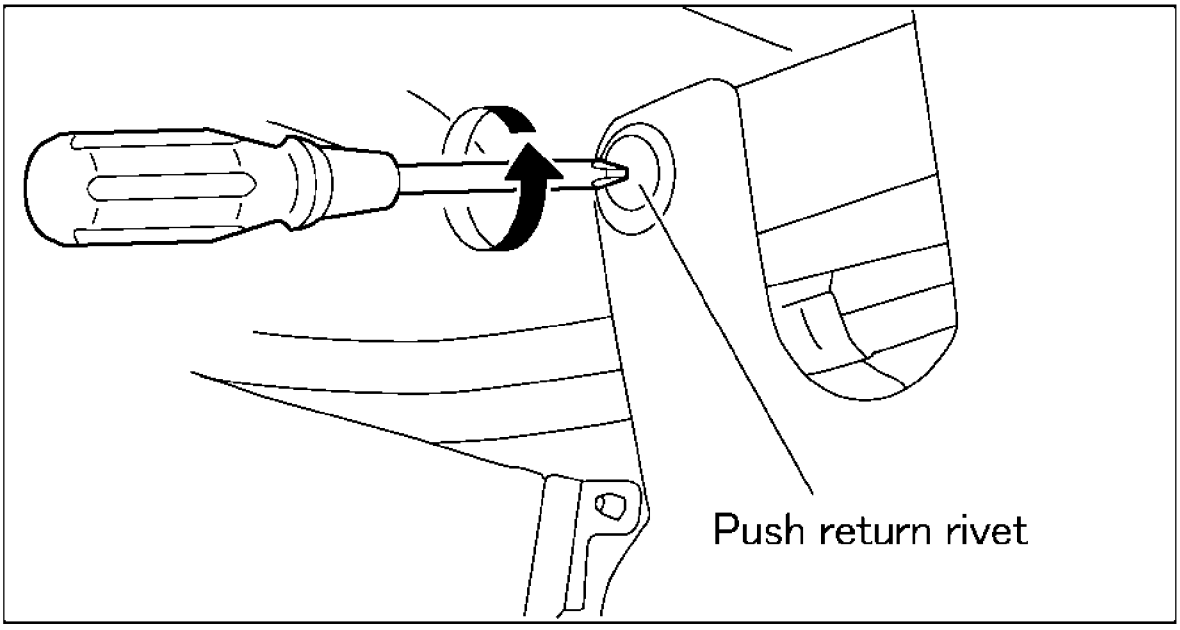
10.2.2. Removing the Under cover

1. Take off 8 push-return-rivets fixing Under cover left/right and one brush clips (for Under cover right.)

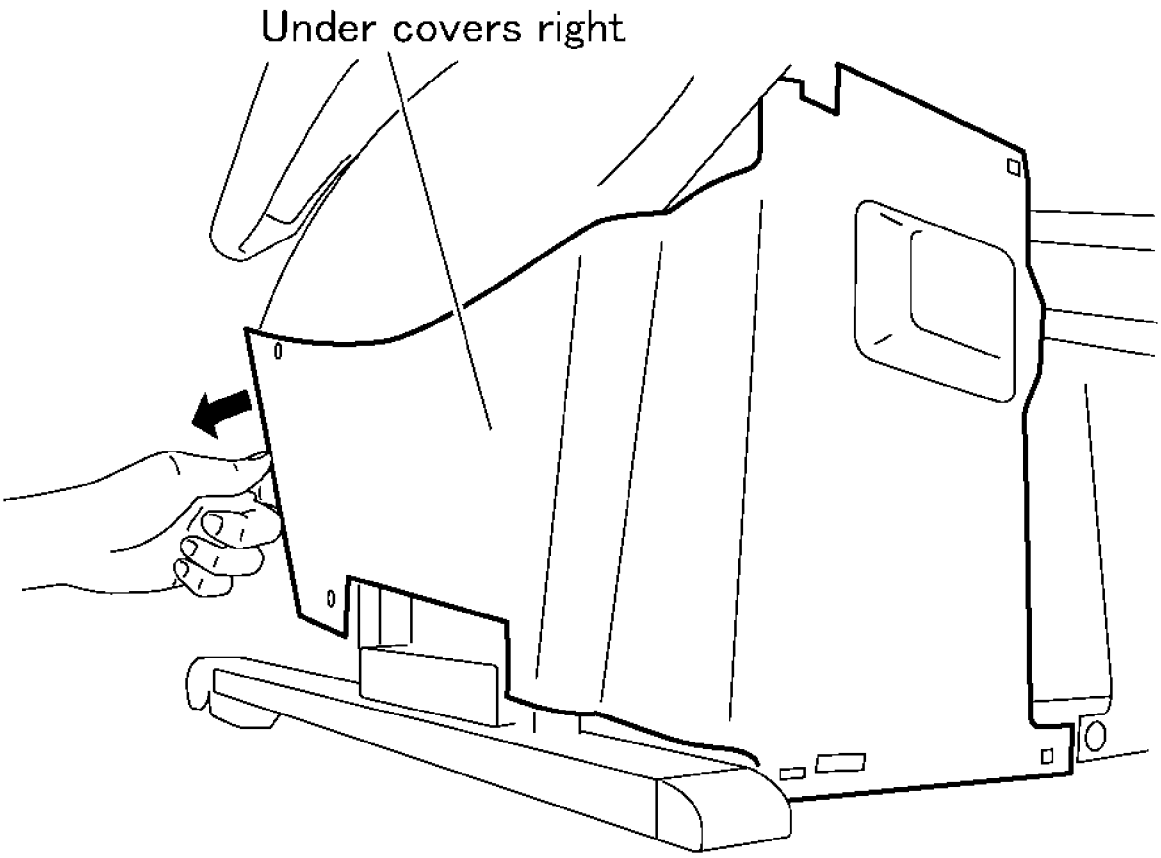

Brush clip
Controller cord
Power source box
Push out the Brush clip from inside.


Push return rivet





2. Take off the Under covers right/left.
***When you take off the Under cover right, first take off the parts around the Power source box.**



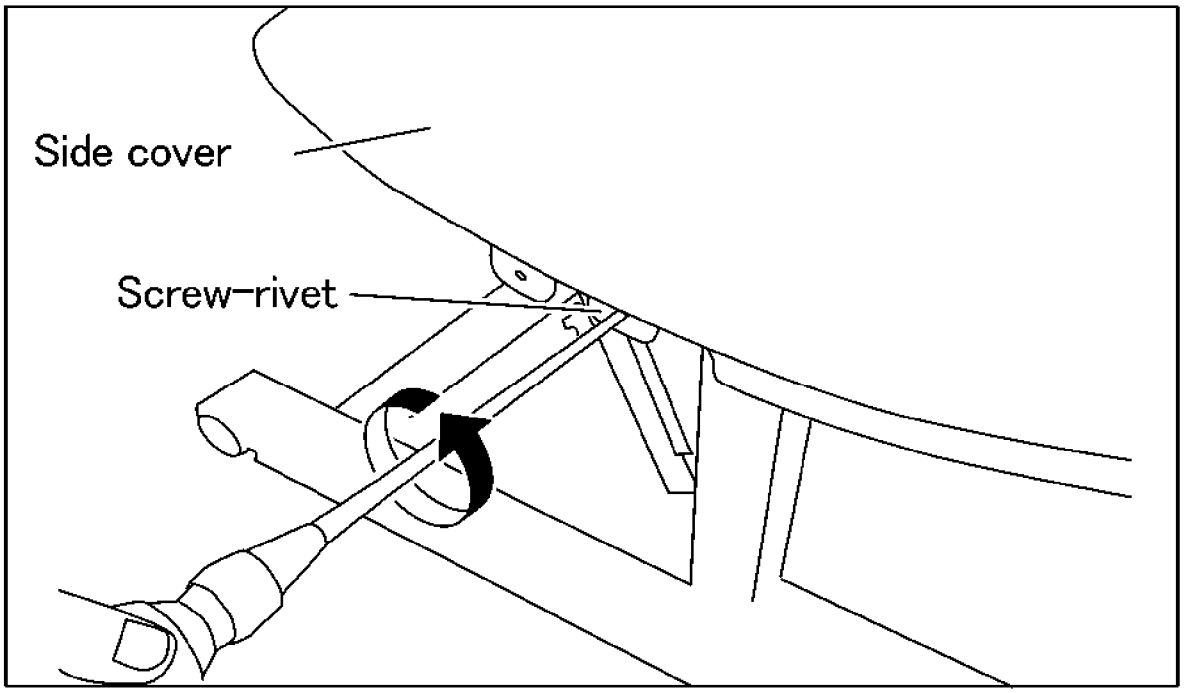
Caution when installing

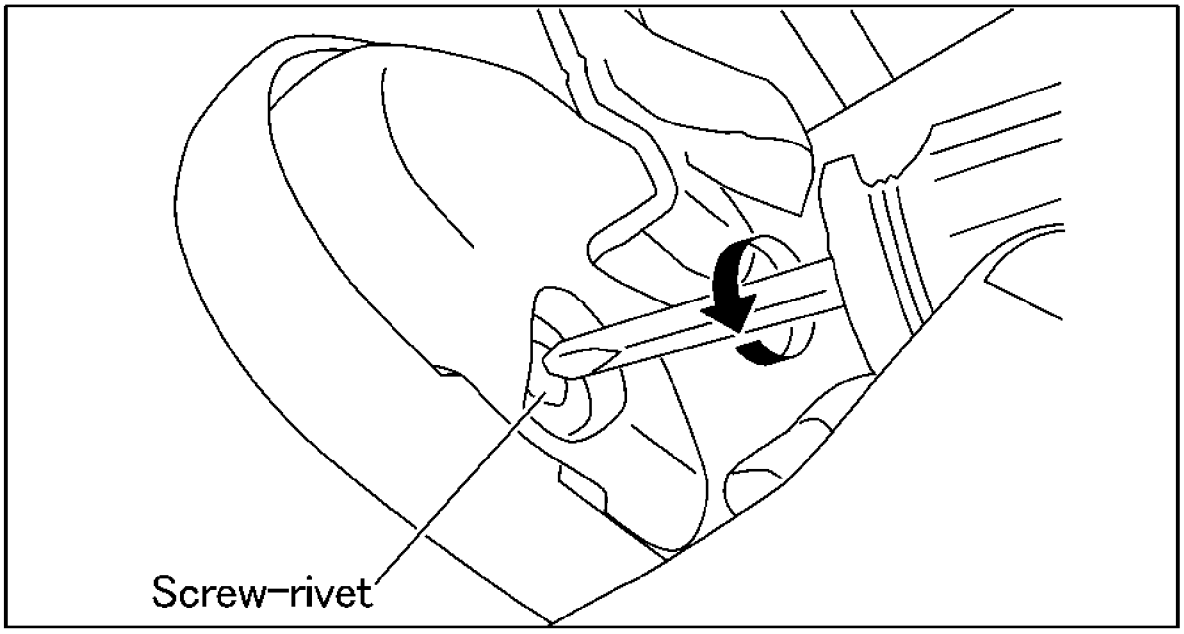
When installing the Under covers, be sure to confirm that the Under covers do not pull or crush the Air hoses, and move the Ottoman to confirm that the Ottoman does not pull anything.

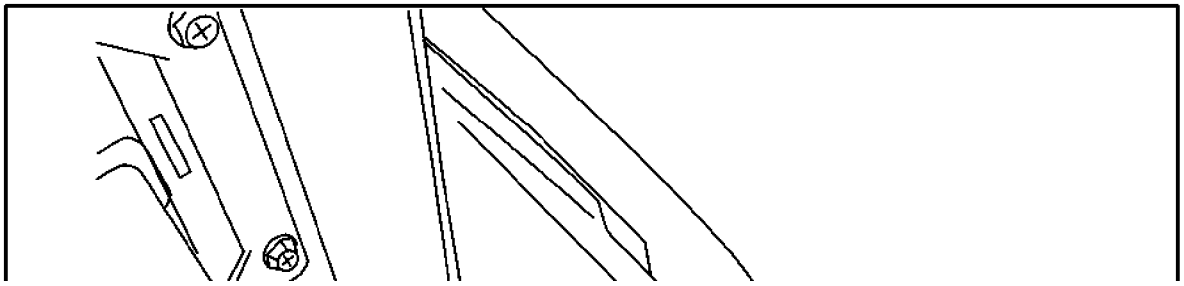
10.2.3. Removing the Side cover

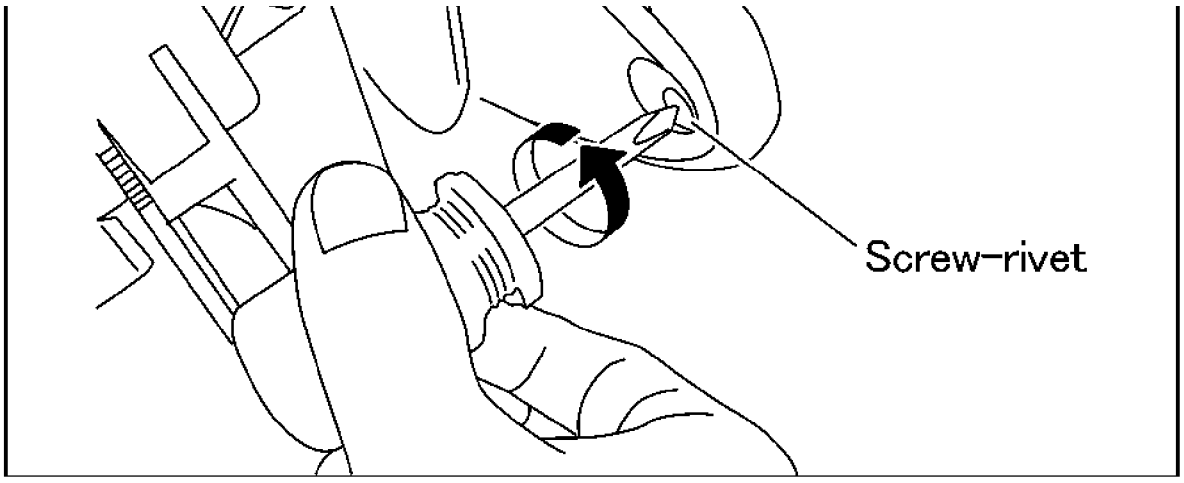
1. Follow the procedure 10.2.1 Removing the Rear cover and 10.2.2. Removing the Under cover.

2. Unscrew three srew-rivets.


Side cover
Screw-rivet


Screw-rivet

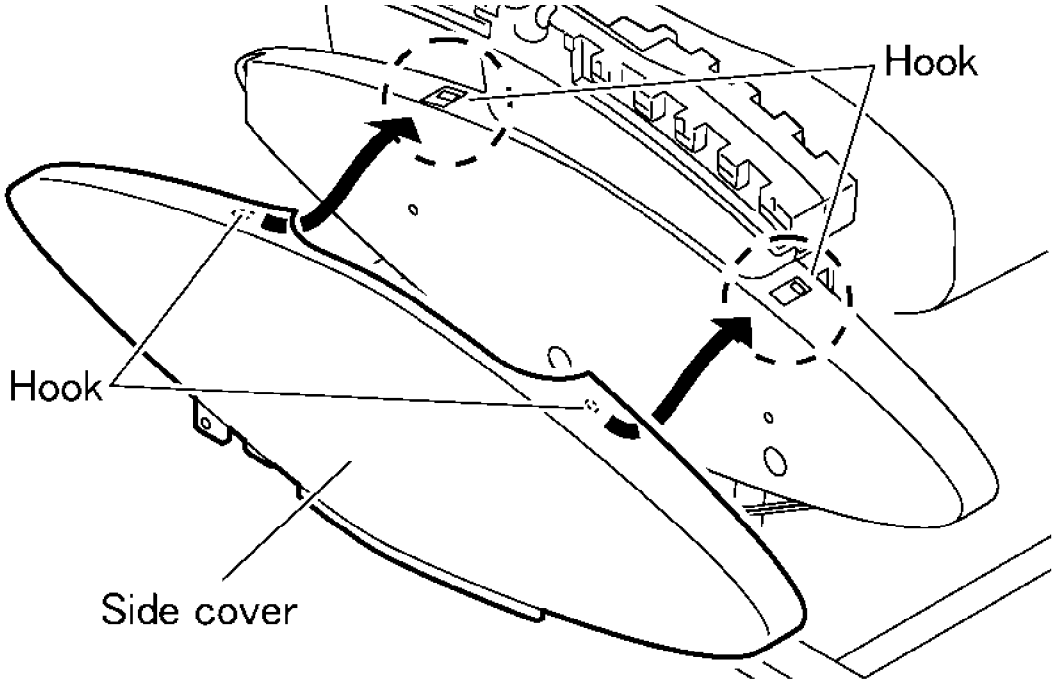




3. Unhook two hooks on the top of the Side cover and take off the Side cover.

Caution

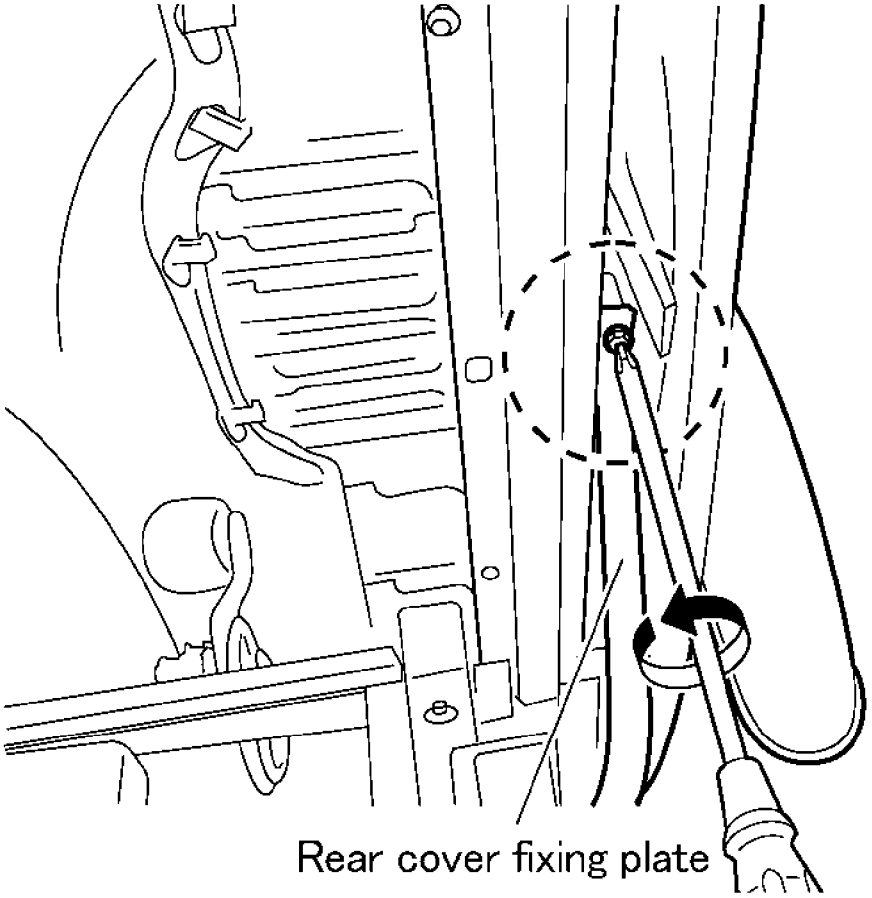
When installing the Side cover, first hook two hooks and then screw screw-rivets.



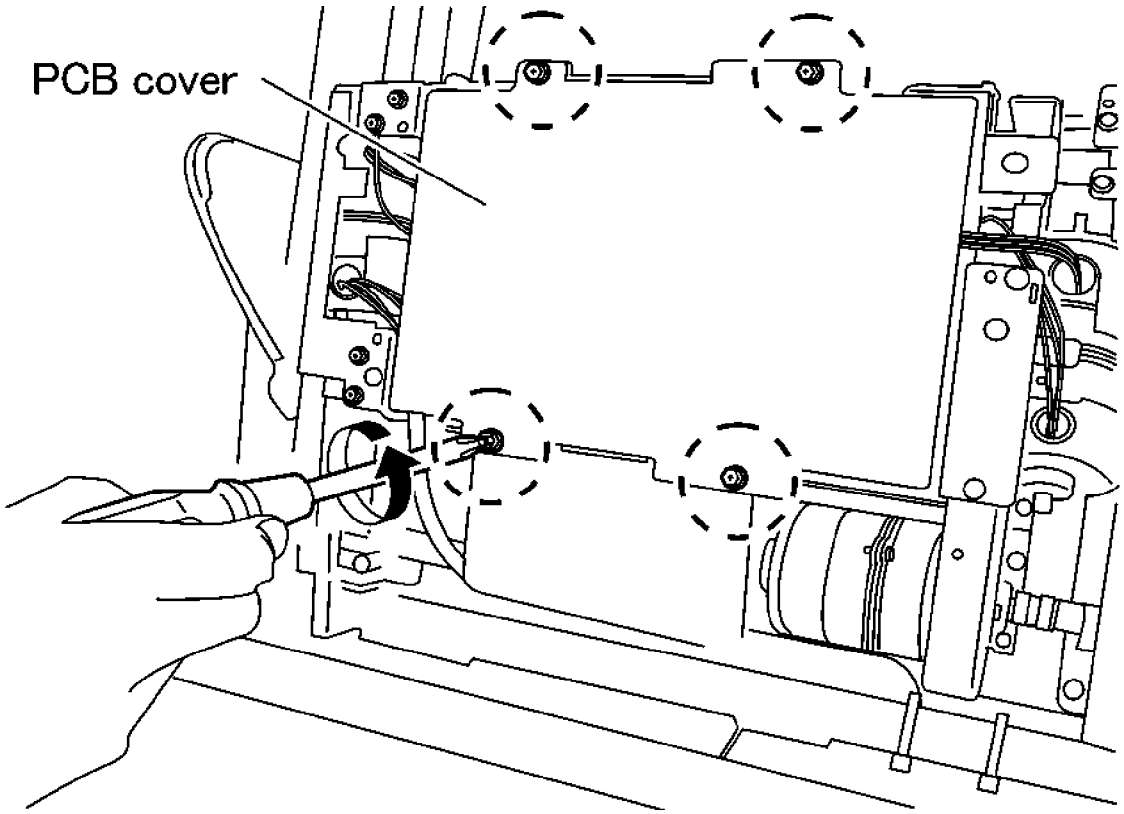
10.3. Removing the Massage mechanism block

Move the Massage mechanism block to the lowest position by the Upward button. Be sure to lean the Massage chair on chairs or desk so that the work will be easy.

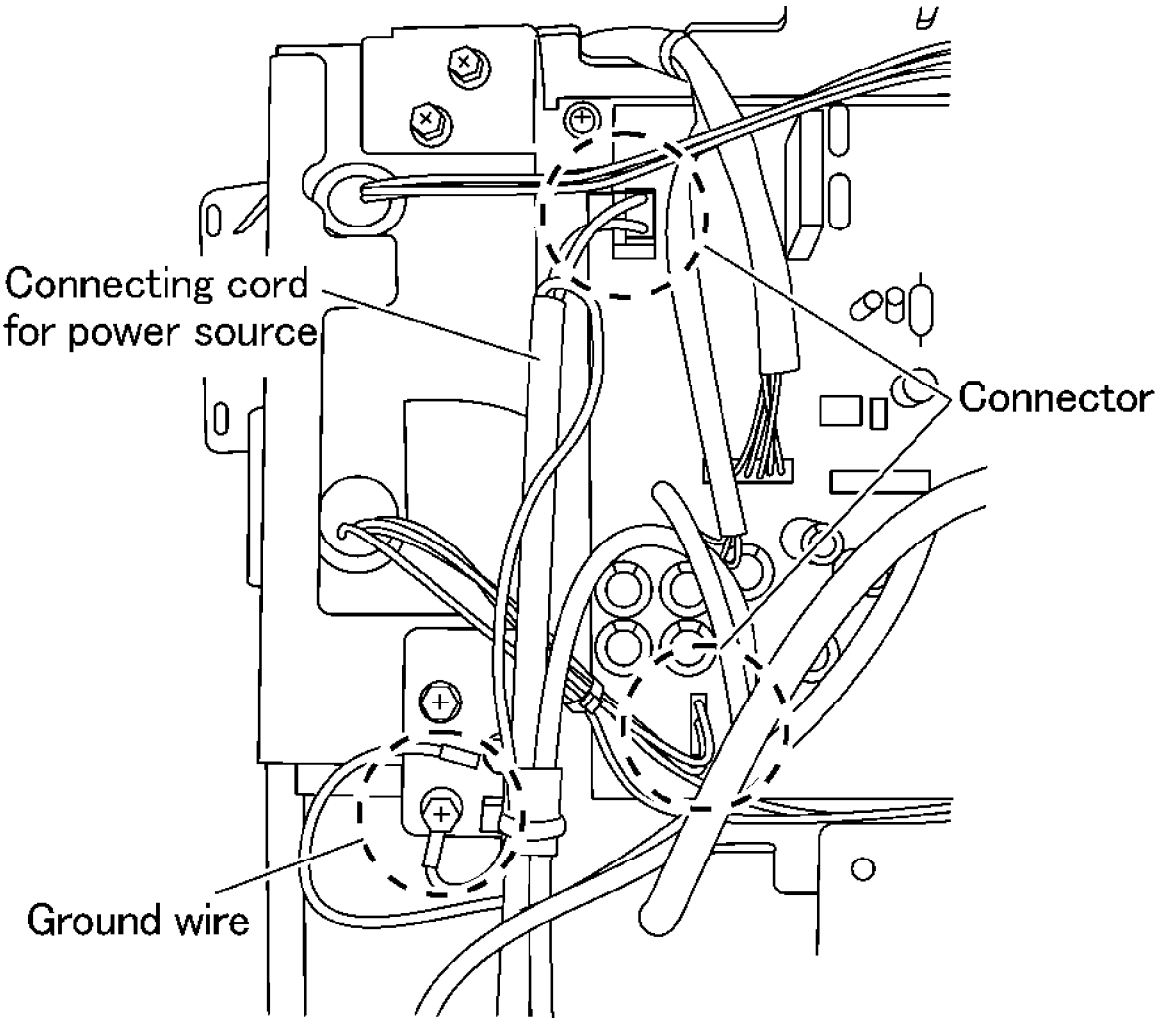
1. Unscrew four screws on the Rear cover fixing plate.



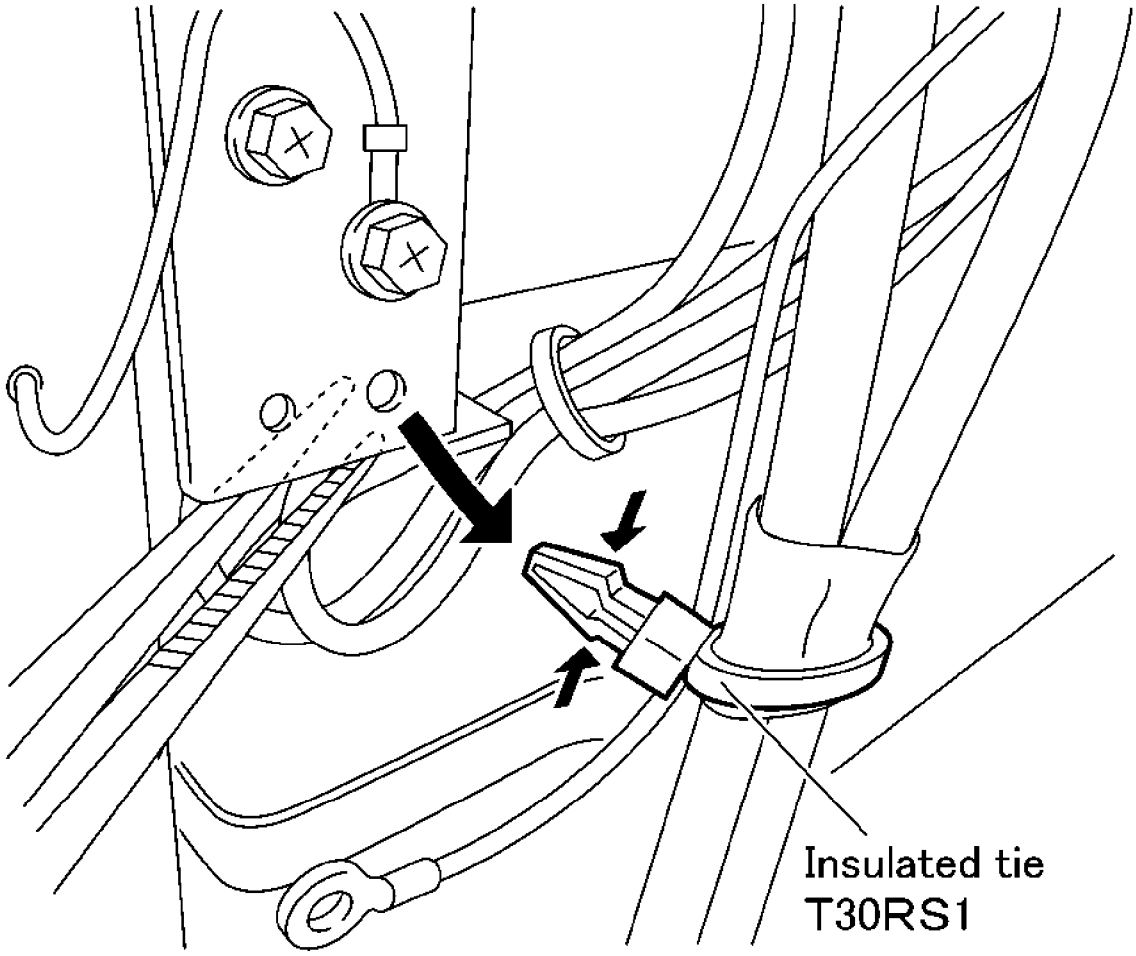
2. Unscrew four screws of the PC board and remove the PCB cover.



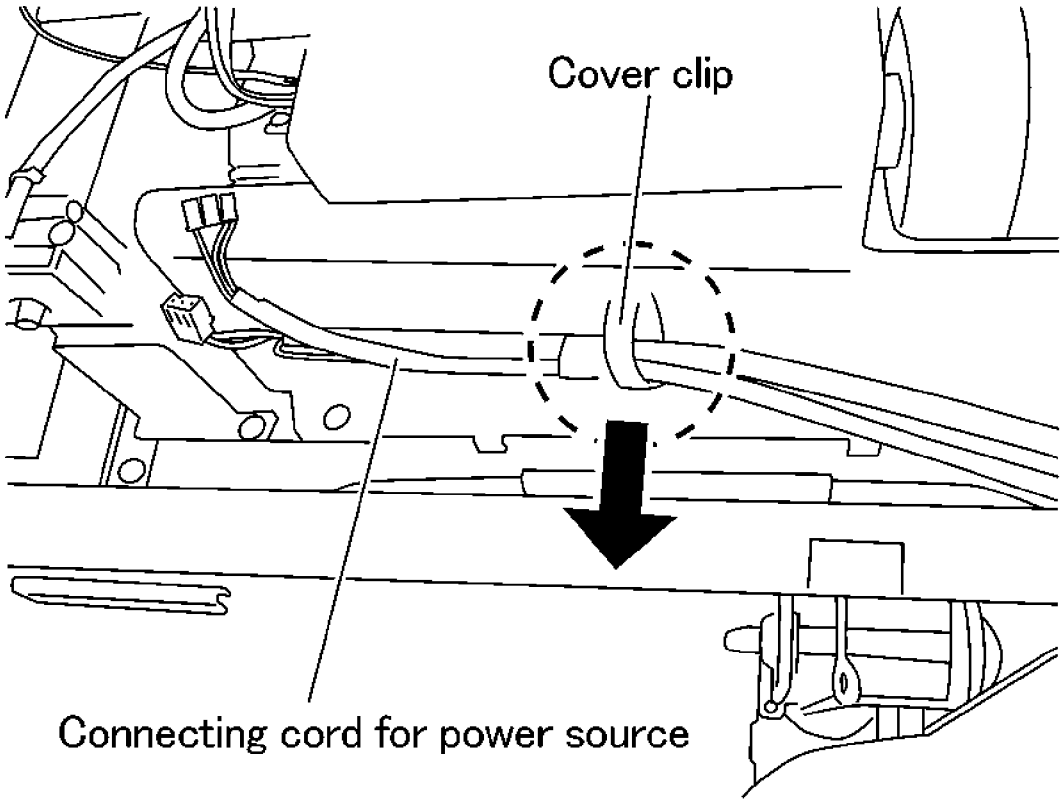
3. Unscrew a screw fixing the ground wire and disconnect two connectors.



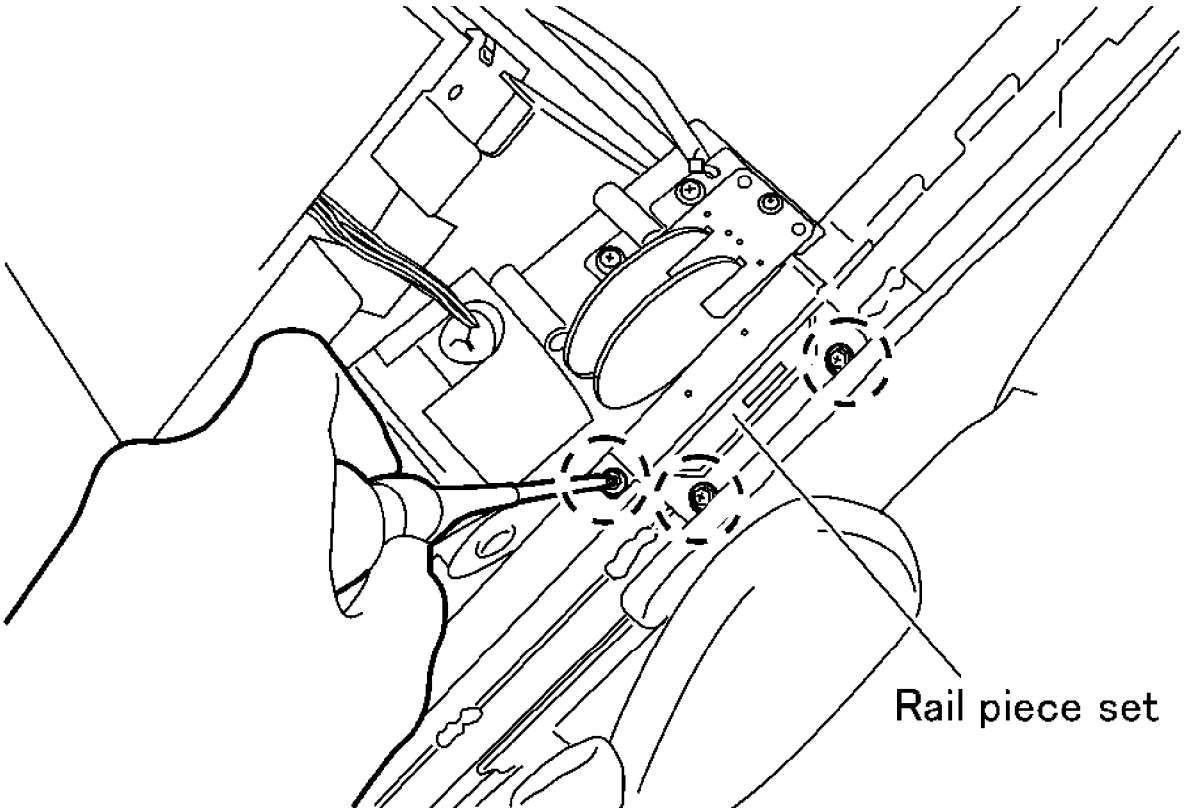
4. Pinch the hook of the Insulated tie and remove it.



5. Remove the Connecting cord for power source from the Cover clip.



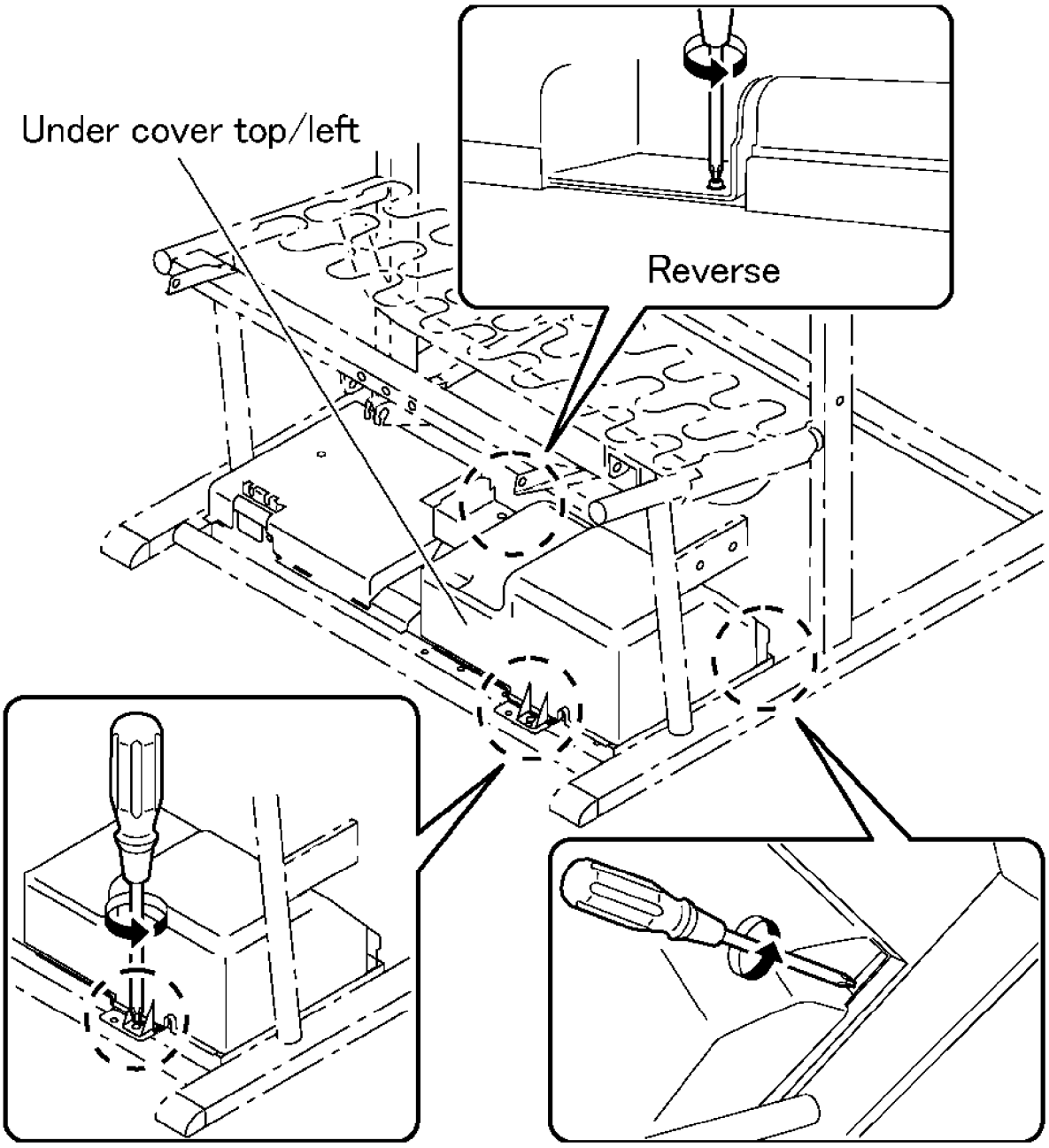
6. Remove Rail piece set at both sides.



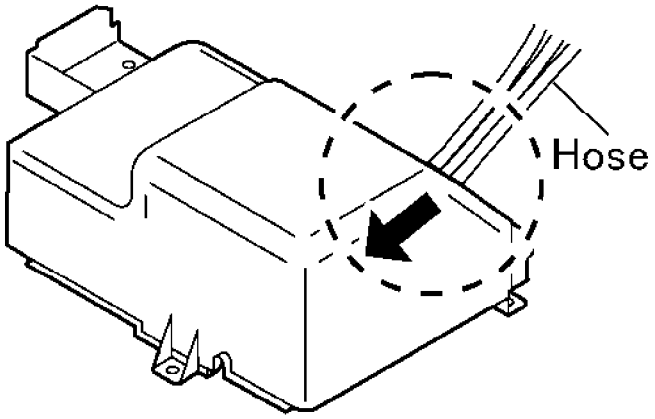
10.4. Removing the Under box and the Under box cover

1. Follow the procedure 10.2.1 Removing the Under cover.

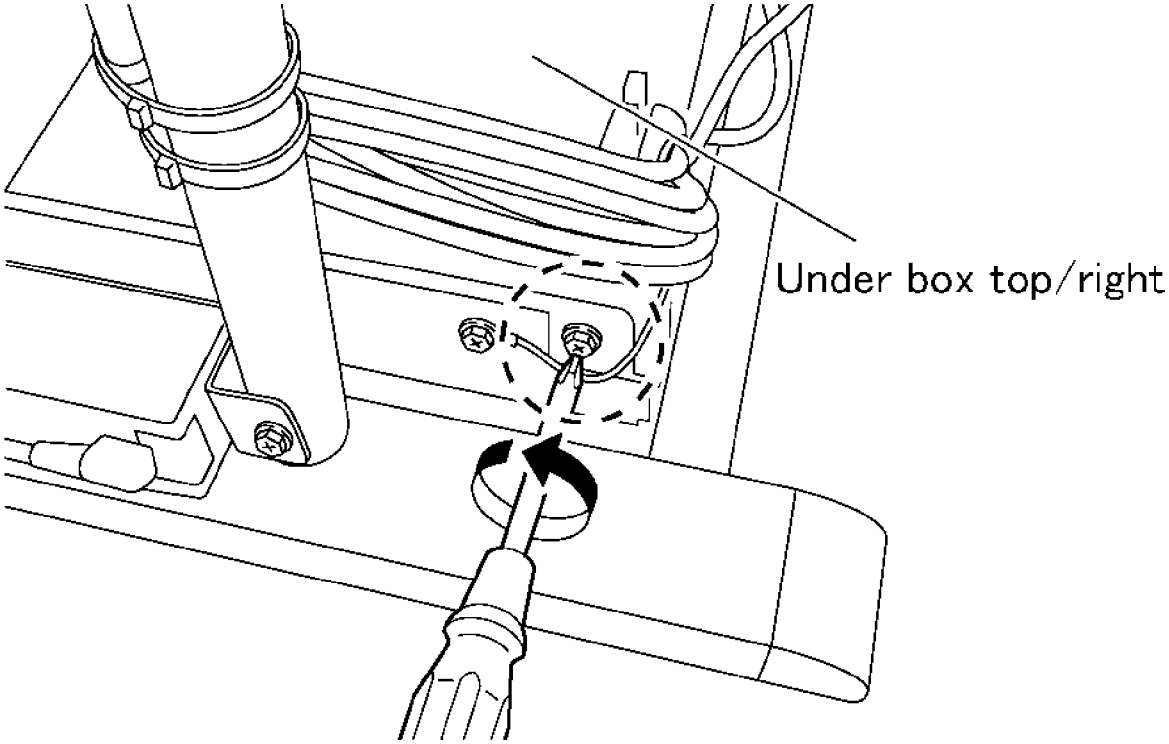
2. Lift the Ottoman and put it on some desk and unscrew three screws on the Under box top/left and float the Under box top/left.

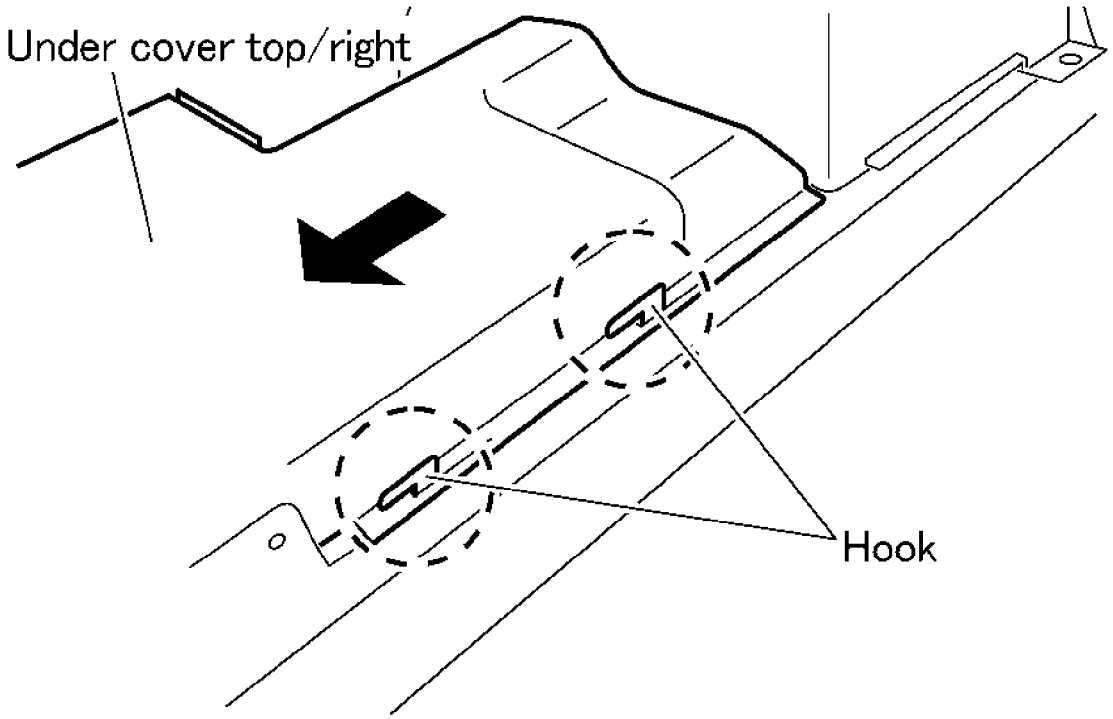


3. Disconnect five Ottoman hoses going through the hole on the Under box top/left and take off the Under cover box top/left.

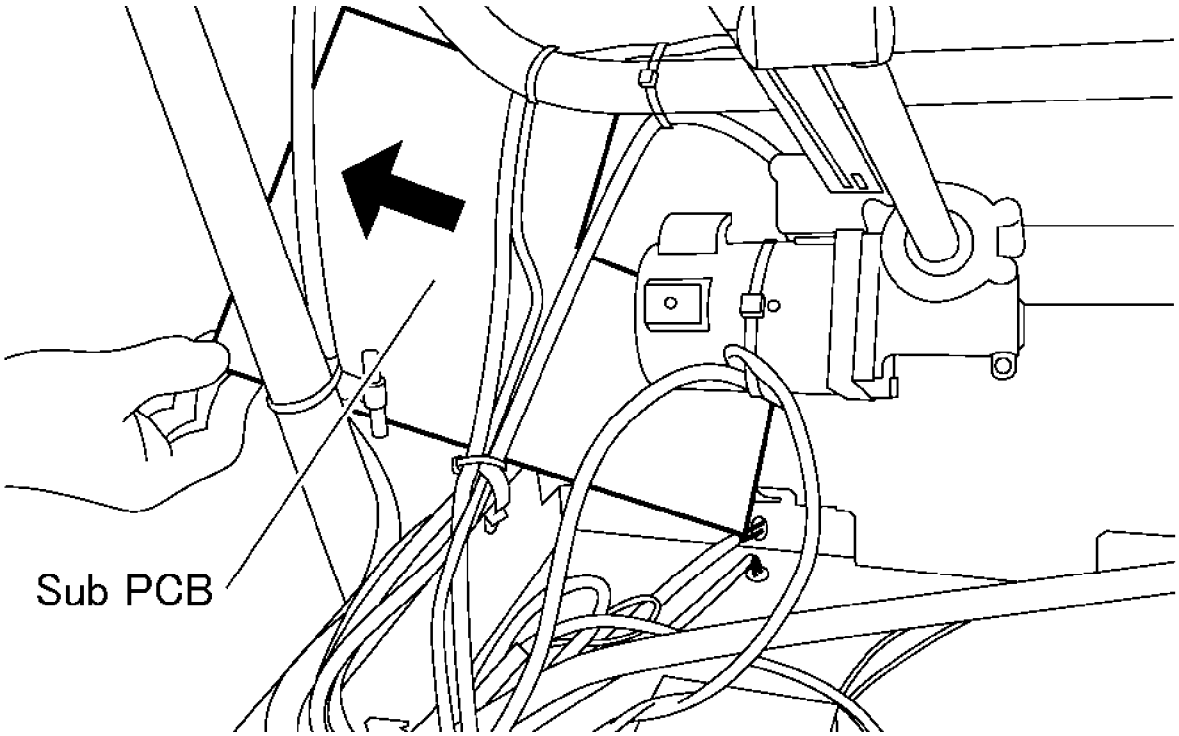


4. Unscrew a screw on the Under box top/right and slide the Under box top/right to the left and unhook four hooks.

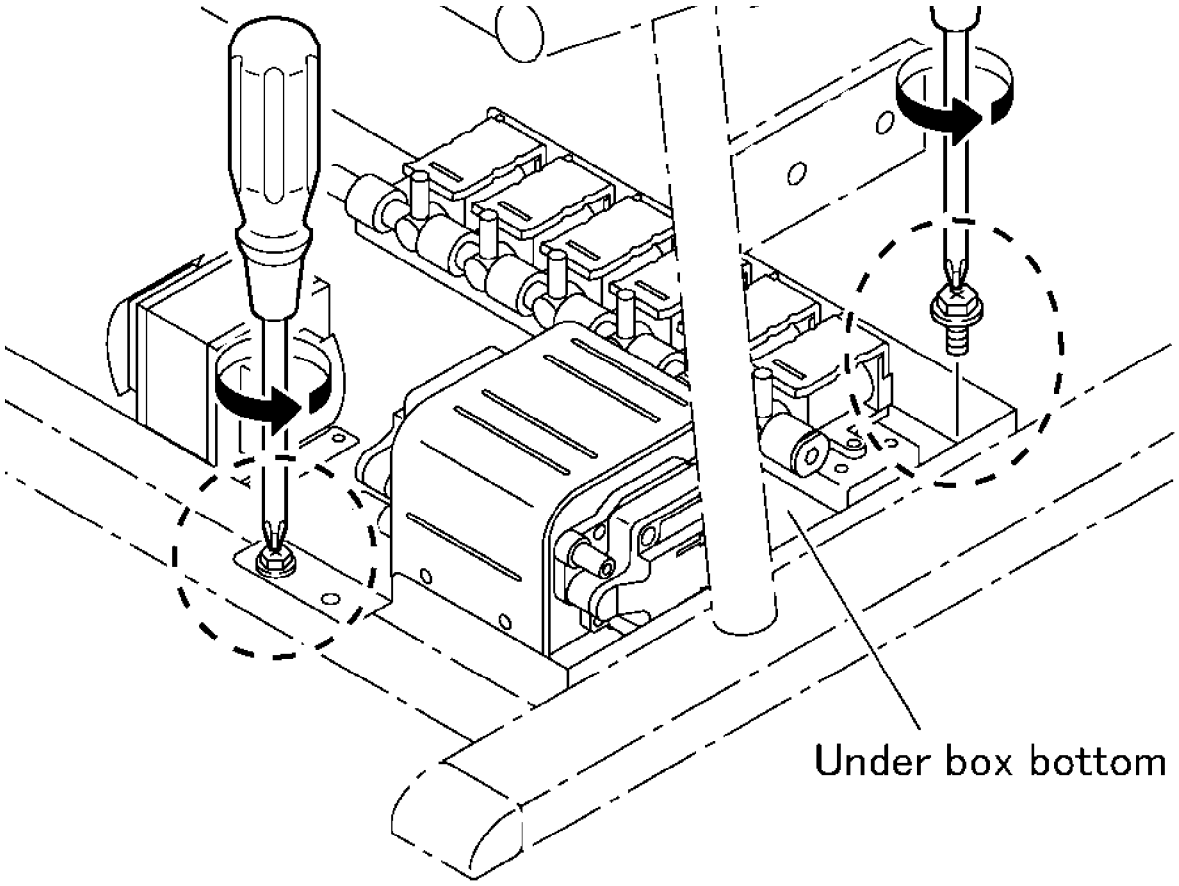


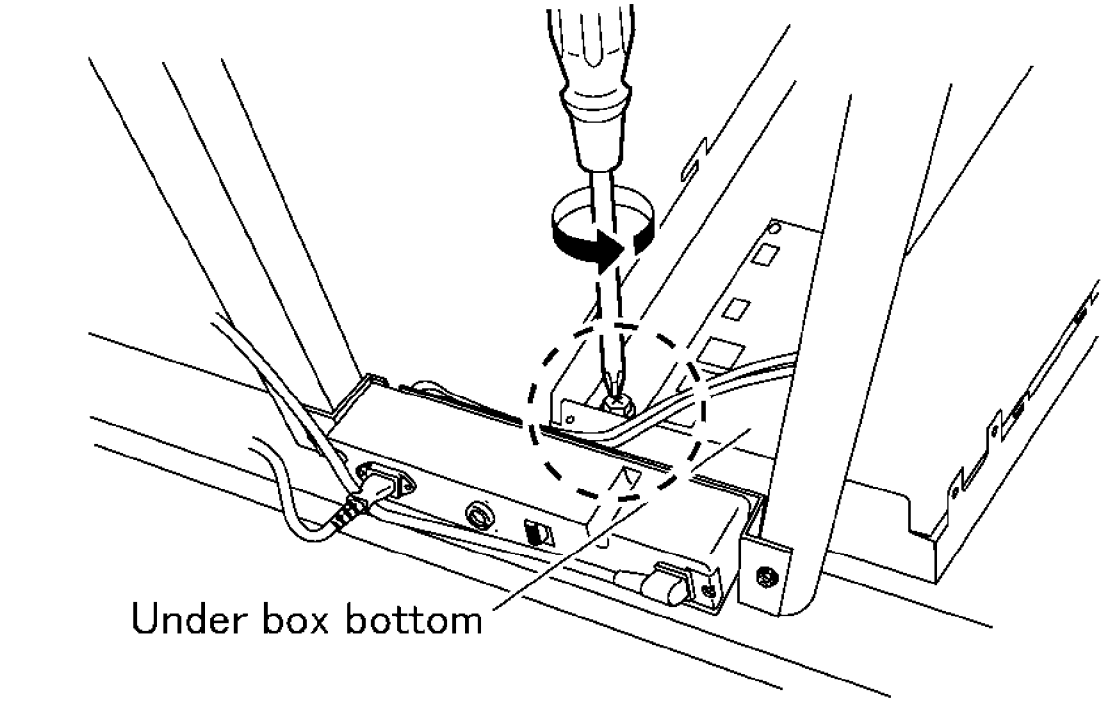


5. Remove the Sub PCB.



6. Unscrew three screws on the Under box and pull out the Under box.
Be careful how Ottoman hoses are going out.
Be sure that all hooks are hooked.

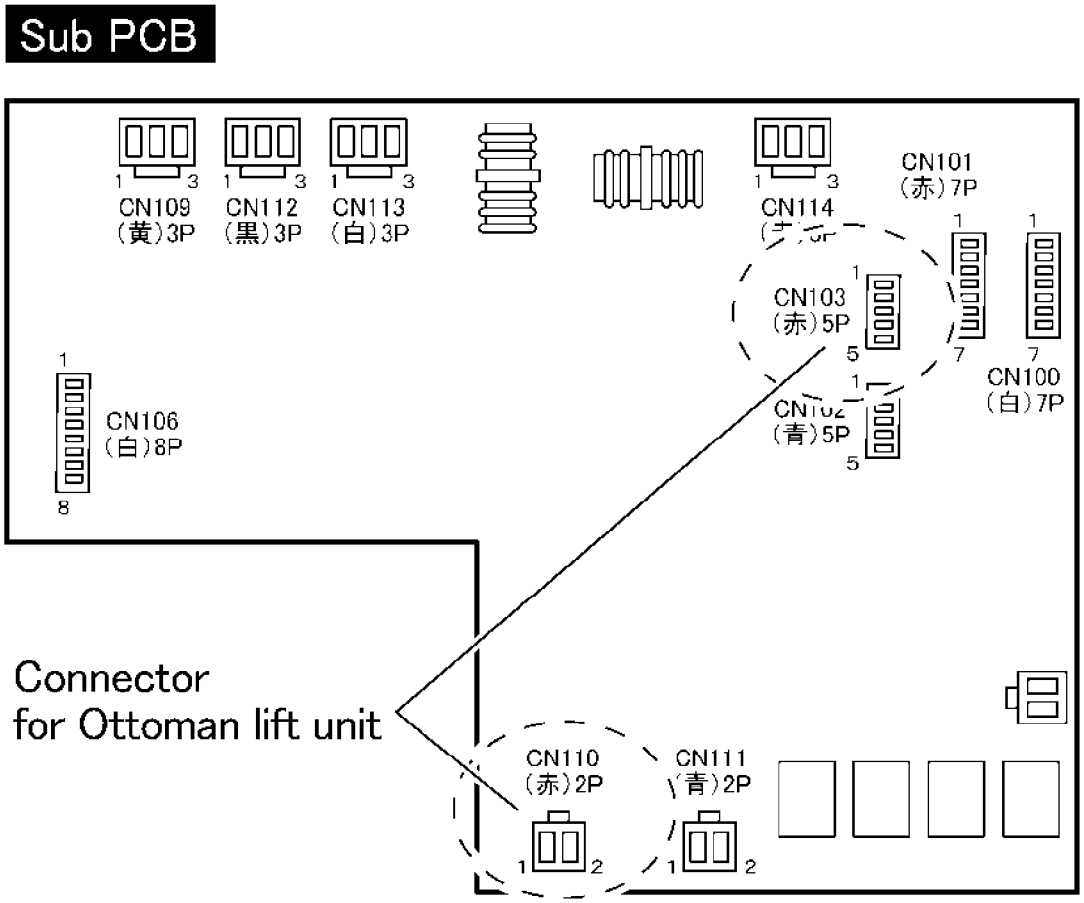

Under box bottom


Under box bottom

10.5. Removing the Lift units

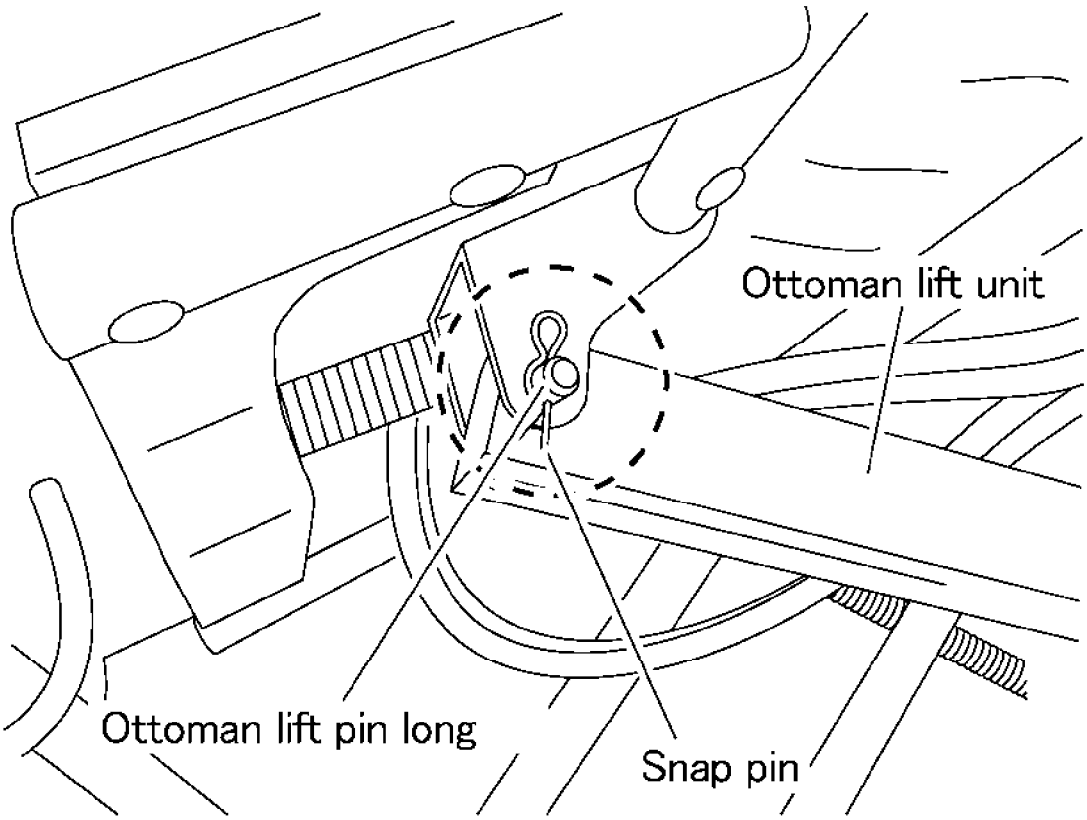
10.5.1. Removing the Ottoman lift unit

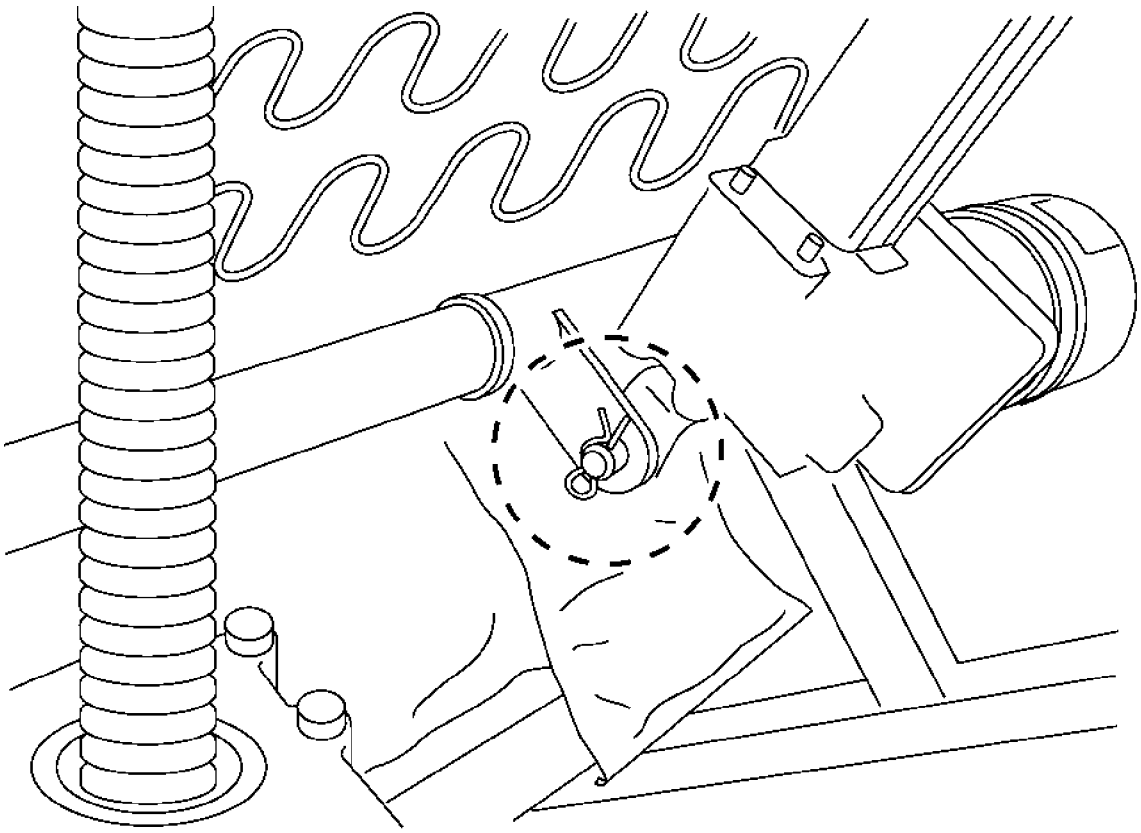
1. Follow the procedure 10.3 Removing the Massage mechanism block.
   *It is safer to unload the Massage mechanism block.
2. Follow the procedure 10.3 Removing the Under cover.
3. Follow the procedure 10.4 Removing the Under box and the Under box cover 1 to 4, and disconnect the connectors red(CN103- CN110) connecting to the Sub PCB.



4. Remove the Ottoman lift pin long and the Snap pin, and remove the Ottoman lift

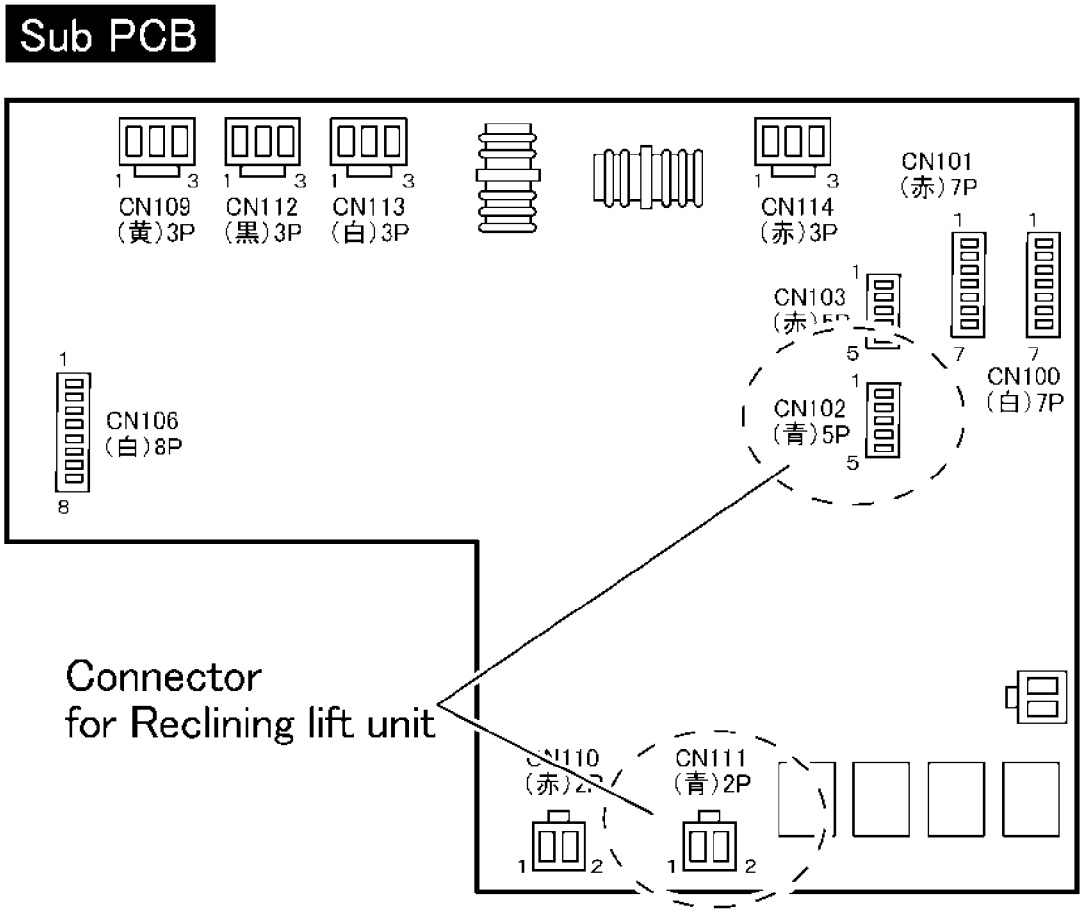
unit.
***It would be easy to remove the Ottoman lift unit if you unload the Massage mechanism block.**





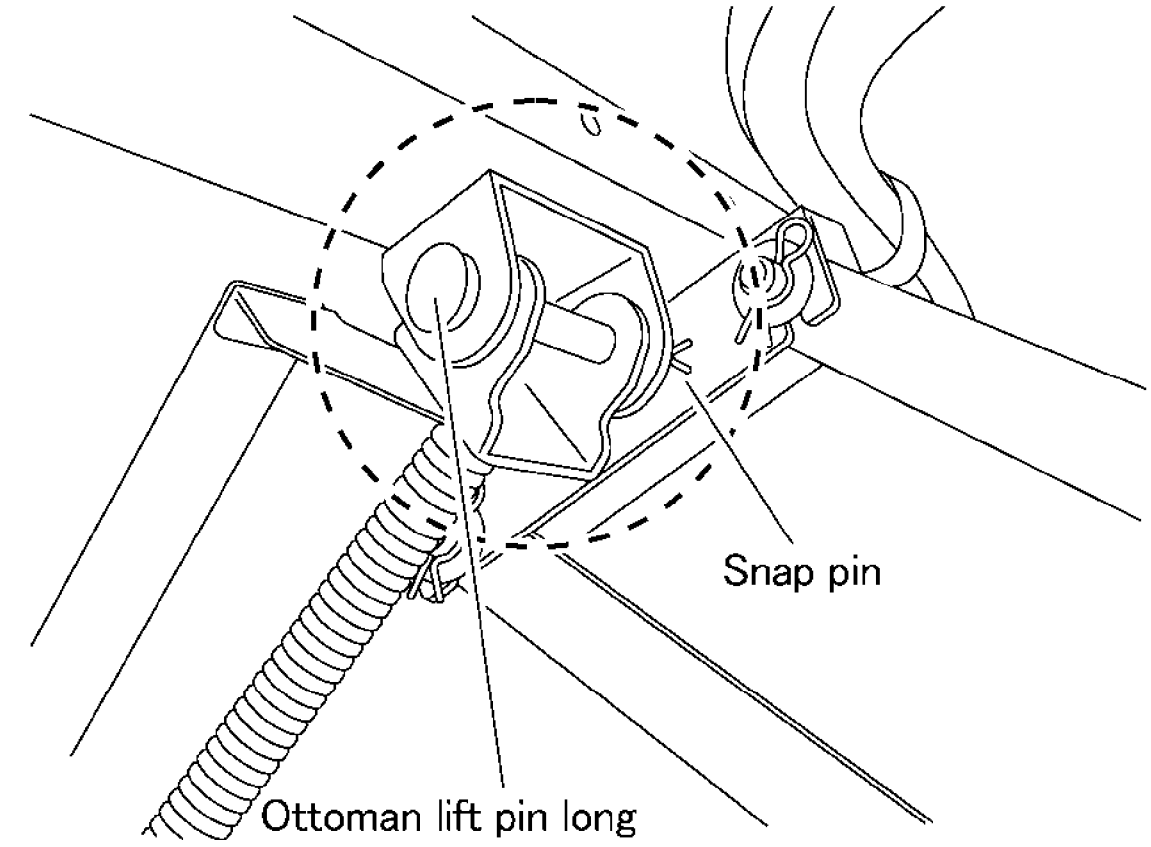
10.5.2. Removing the Reclining lift unit

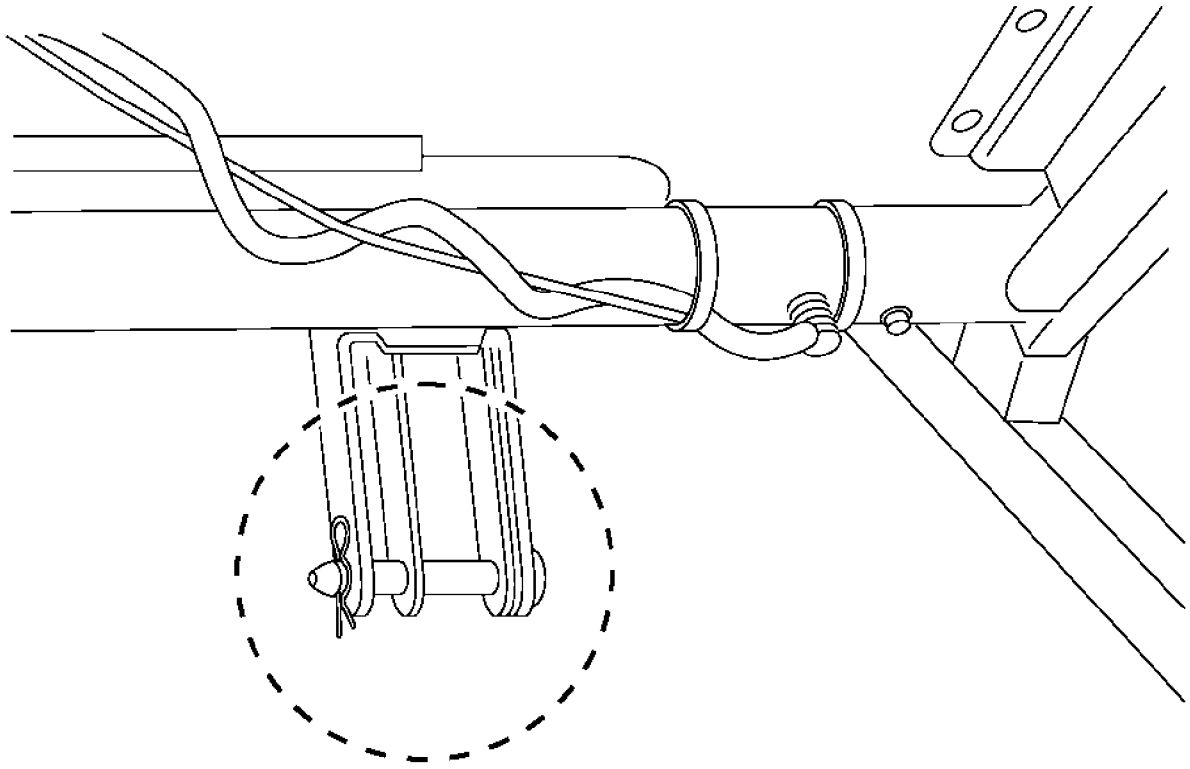
1. **Follow the procedure 10.3 Removing the Massage mechanism block.**
   ***It is safer to unload the Massage mechanism block.**
2. **Follow the procedure 10.3 Removing the Under cover.**
3. **Follow the procedure 10.4 Removing the Under box and the Under box cover 1 to 4, and disconnect the connectors blue(CN102- CN111) connecting to the Sub PCB.**



4. Remove the Ottoman lift pin long and the Snap pin, and remove the Reclining lift unit.

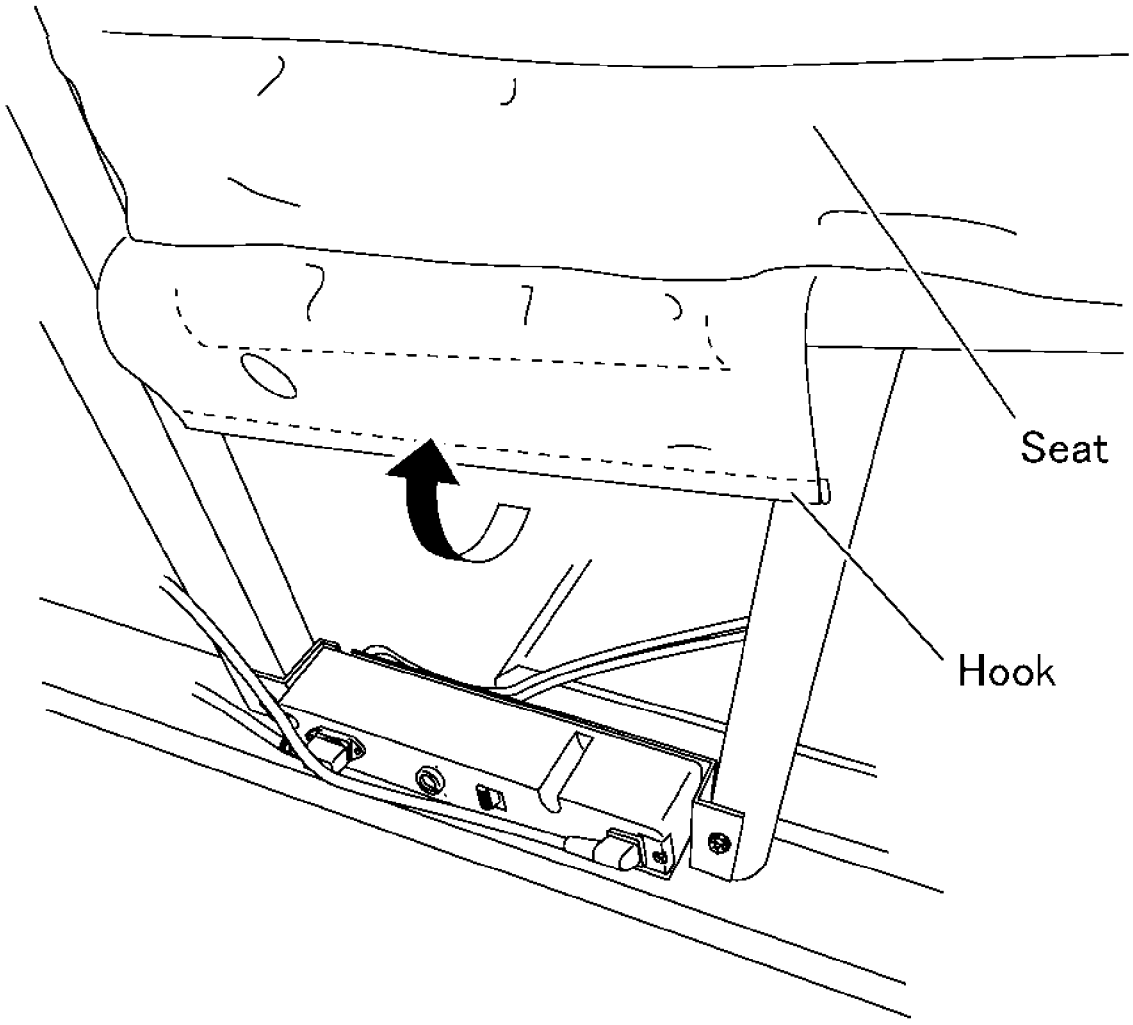
***It would be easy to remove the Reclining lift unit if you unload the Massage mechanism block.**


Snap pin
Ottoman lift pin long

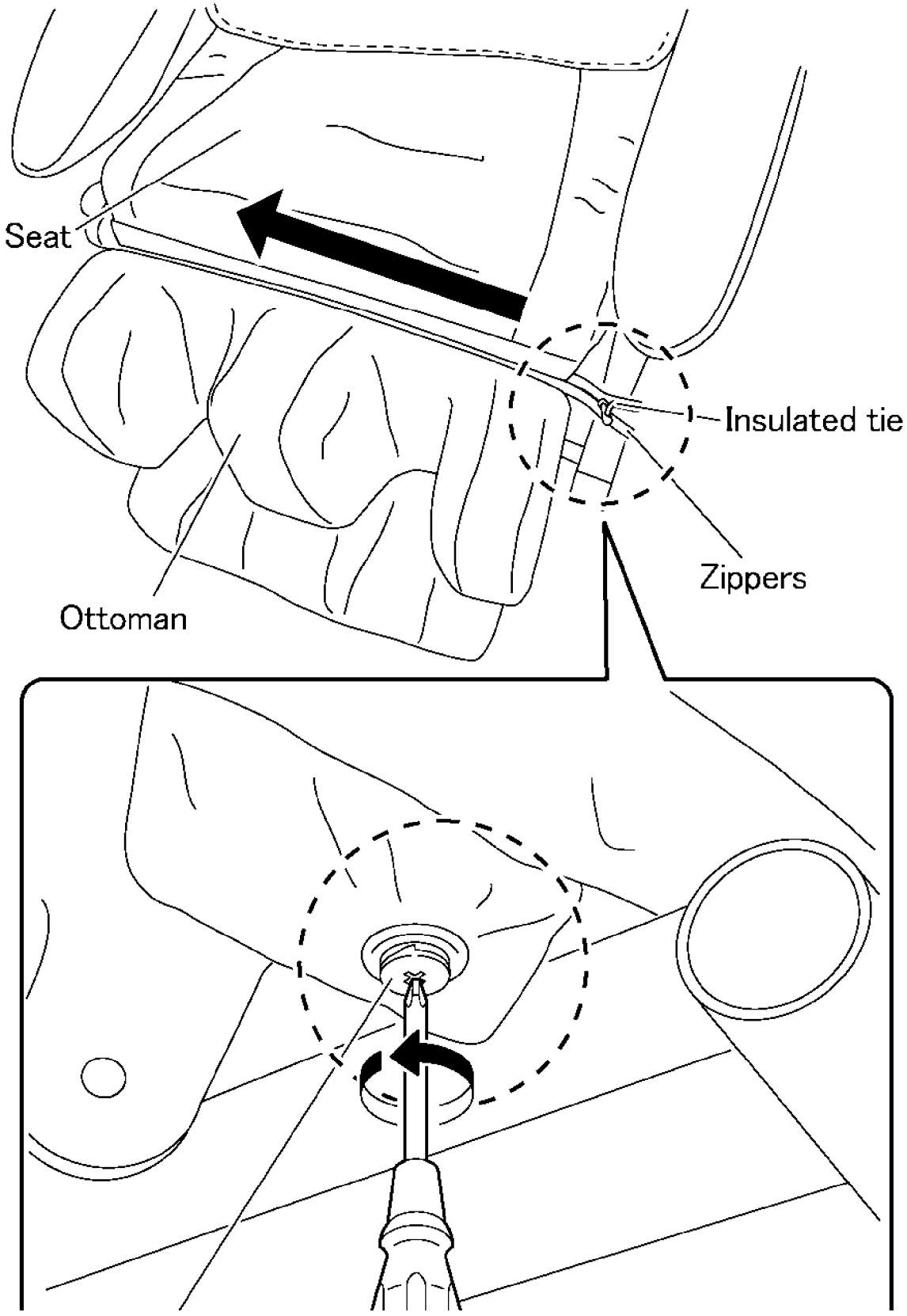


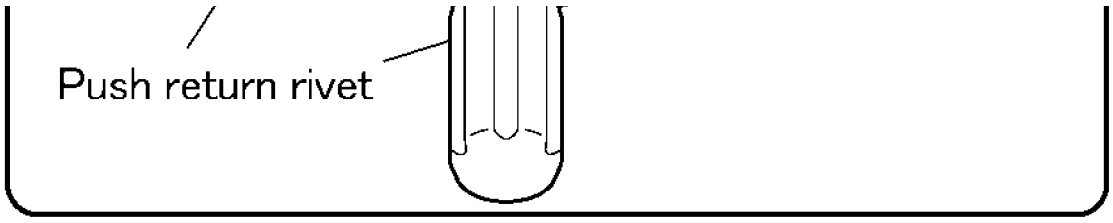
10.6. Removing the Seat

1. **Follow the procedure 10.2.1 Removing the Rear cover, 10.1.1 Removing the Arm rest, and 10.2 Removing the Outside covers.**
2. **Unhook the hooks at both sides of the Seat.**



3. **Cut off the Insulated tie and unzip the zippers of the Seat and the Ottoman and unscrew one each Push return rivets on both sides, and take off the Seat.**


Seat
Insulated tie
Zippers
Ottoman



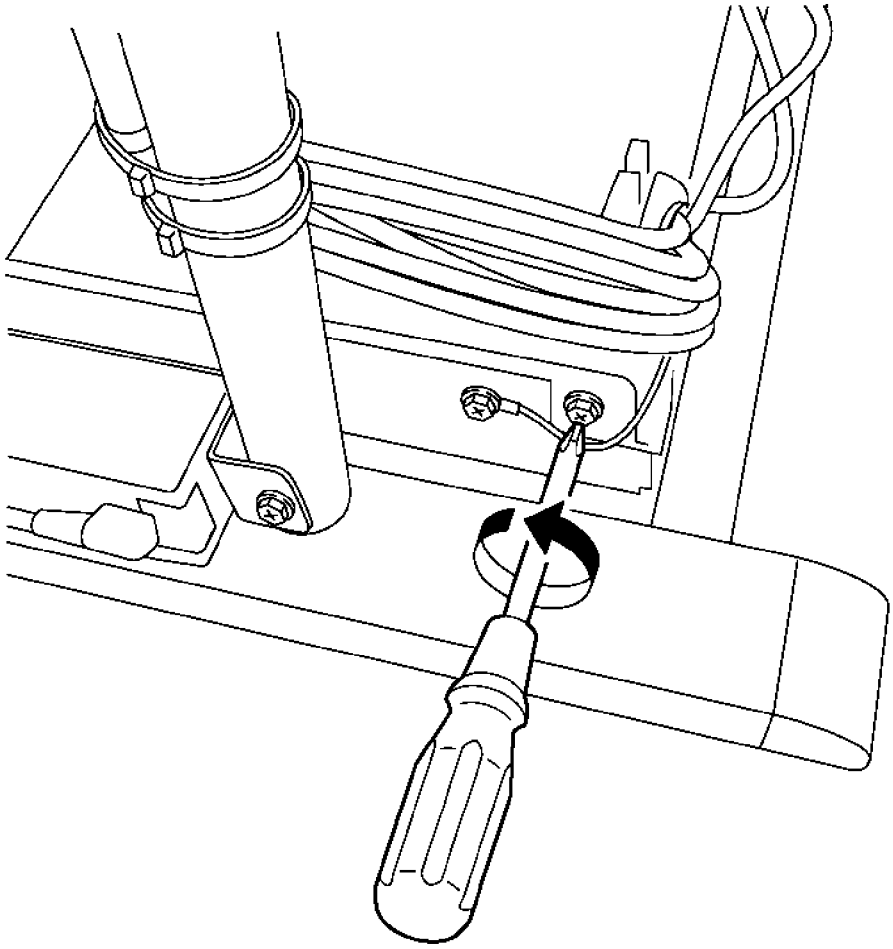
10.7. Removing the Air Ottoman

10.7.1. Removing the Air Ottoman

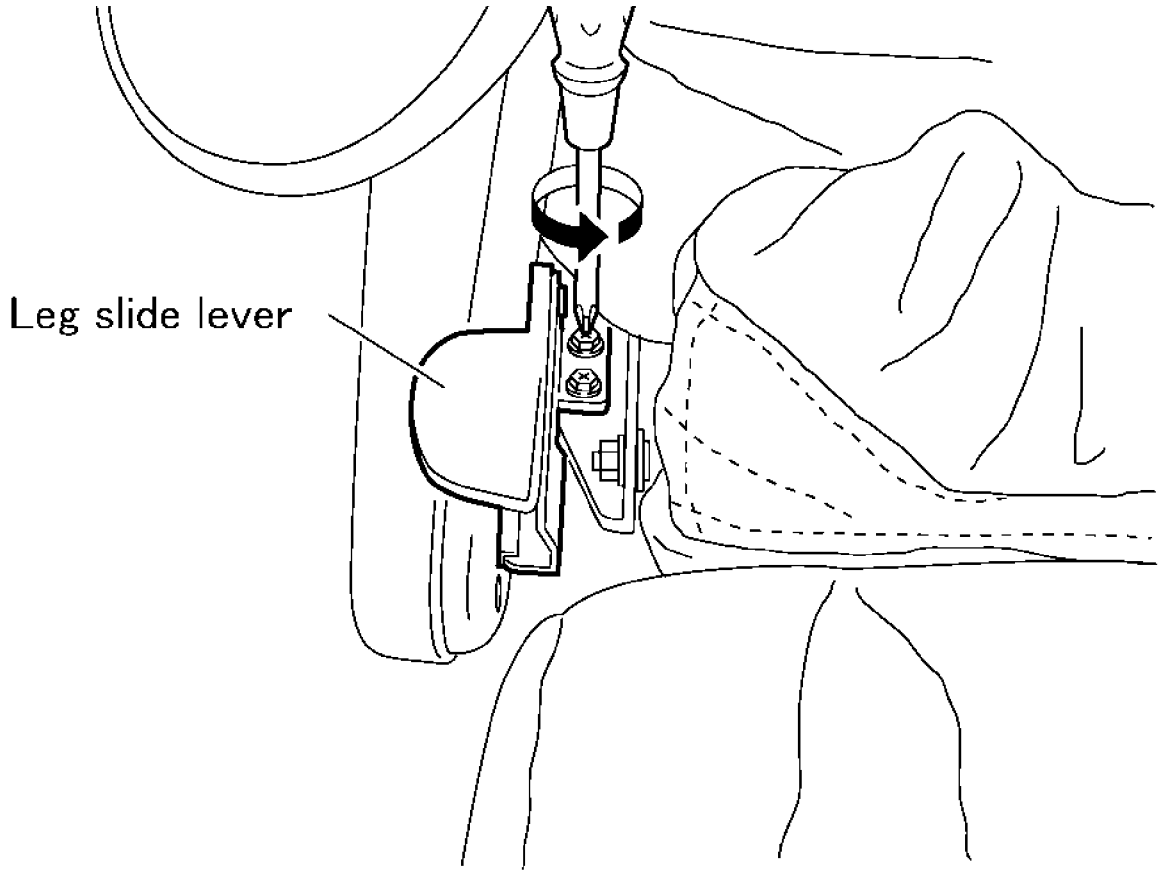
1. Follow the procedure 10.4 Removing the Under Cover.

2. Follow the procedure 10.6 Removing the Seat 3 and unzip the zippers and the Push return rivet of the Seat and the Ottoman.

3. Follow the procedure 10.4 Removing the Under box.

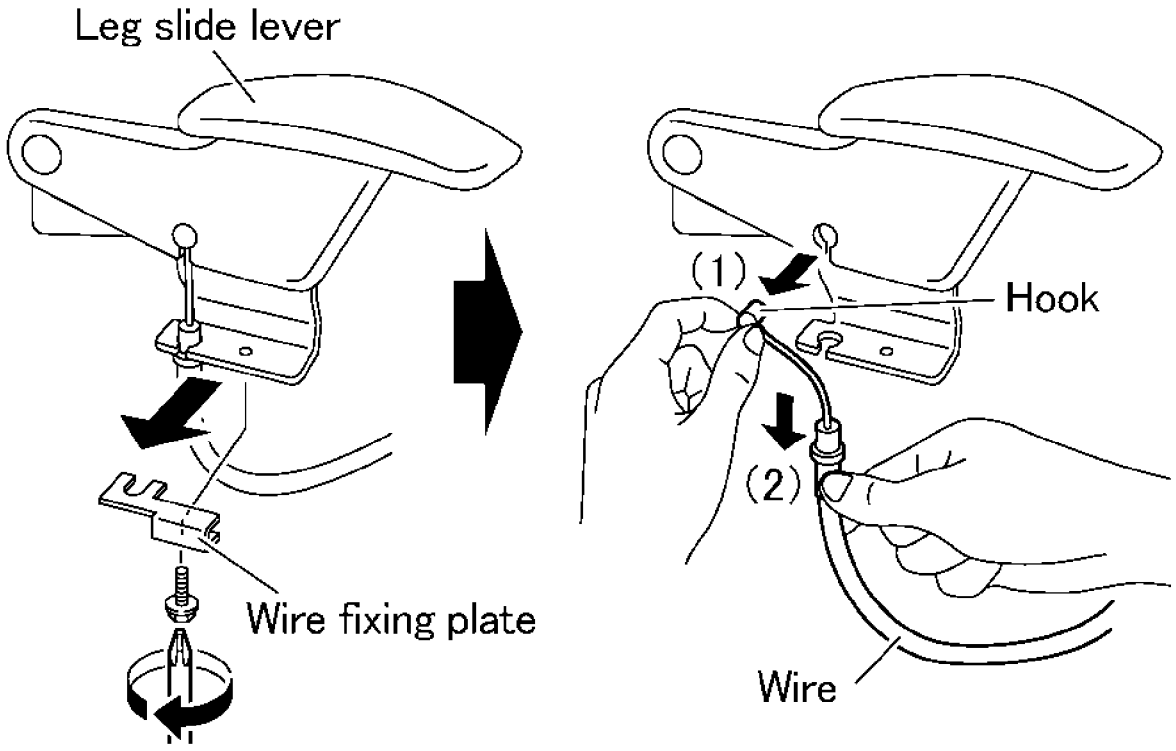


4. Unscrew two screws and take off the Leg slide lever from the Under pipe.

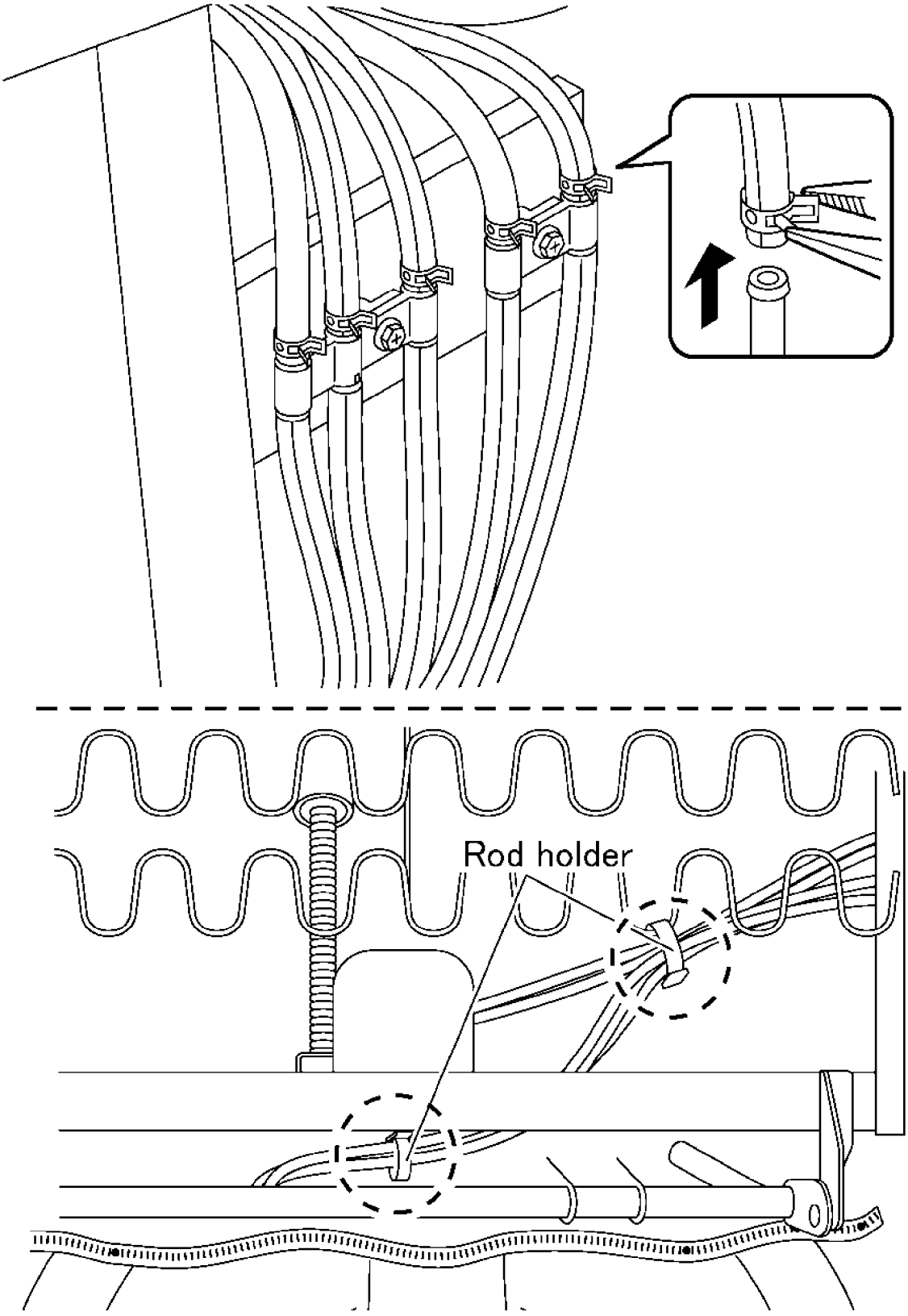


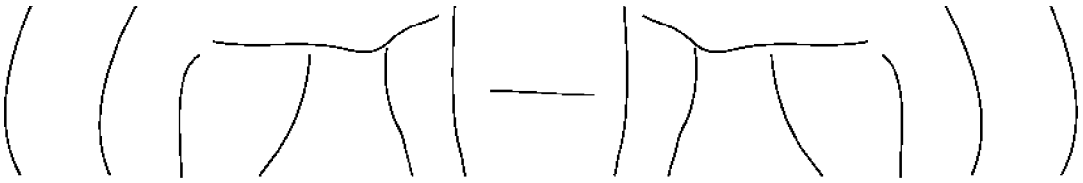
5. Unscrew a screw and take off the Wire fixing plate.

6. Unhook the hook of the wire from the Leg slide lever and pull off the wire.



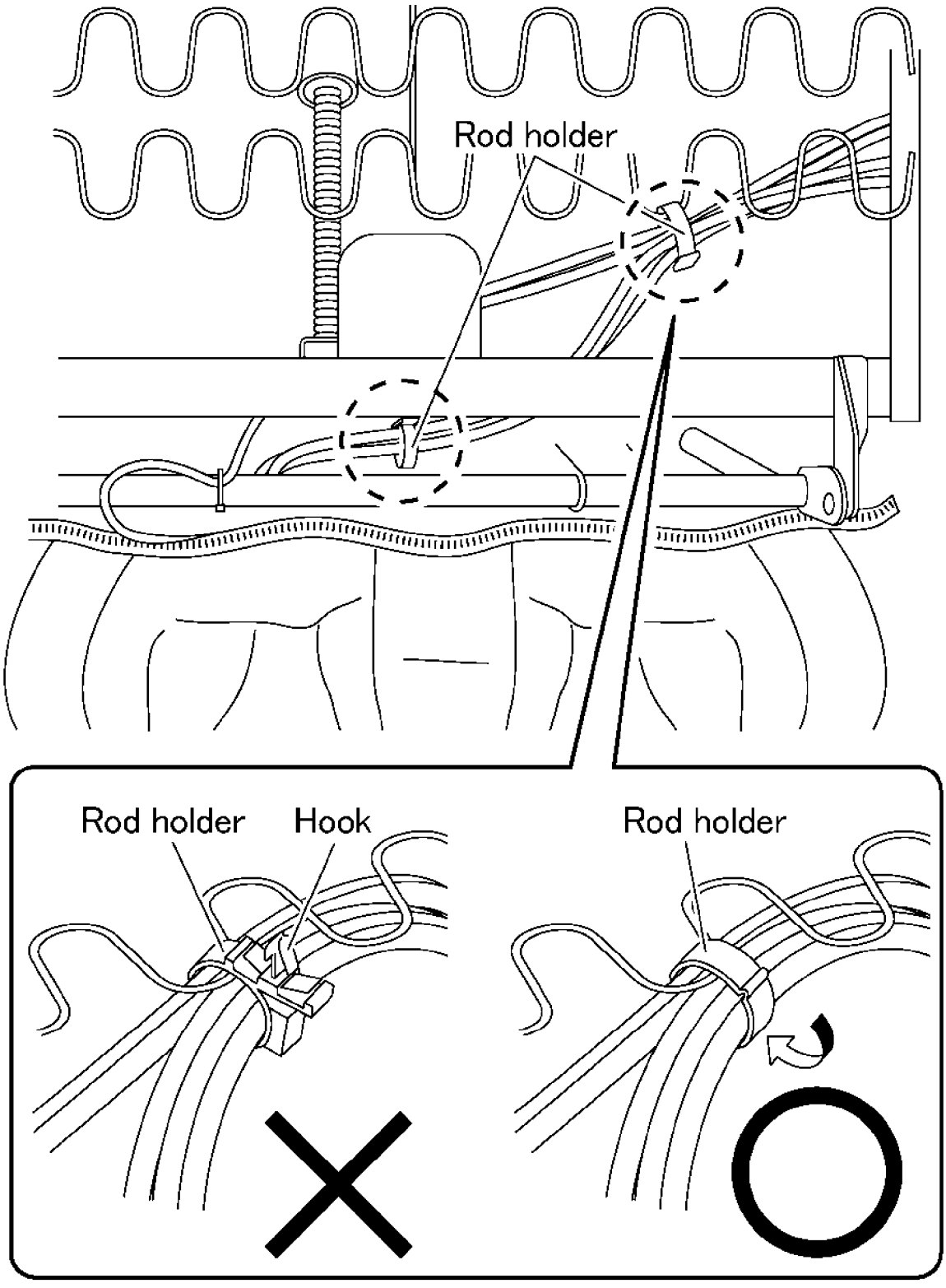
7. Move the Hose clamps and pull off the Hoses and take off the two Rod holders.


Rod holder

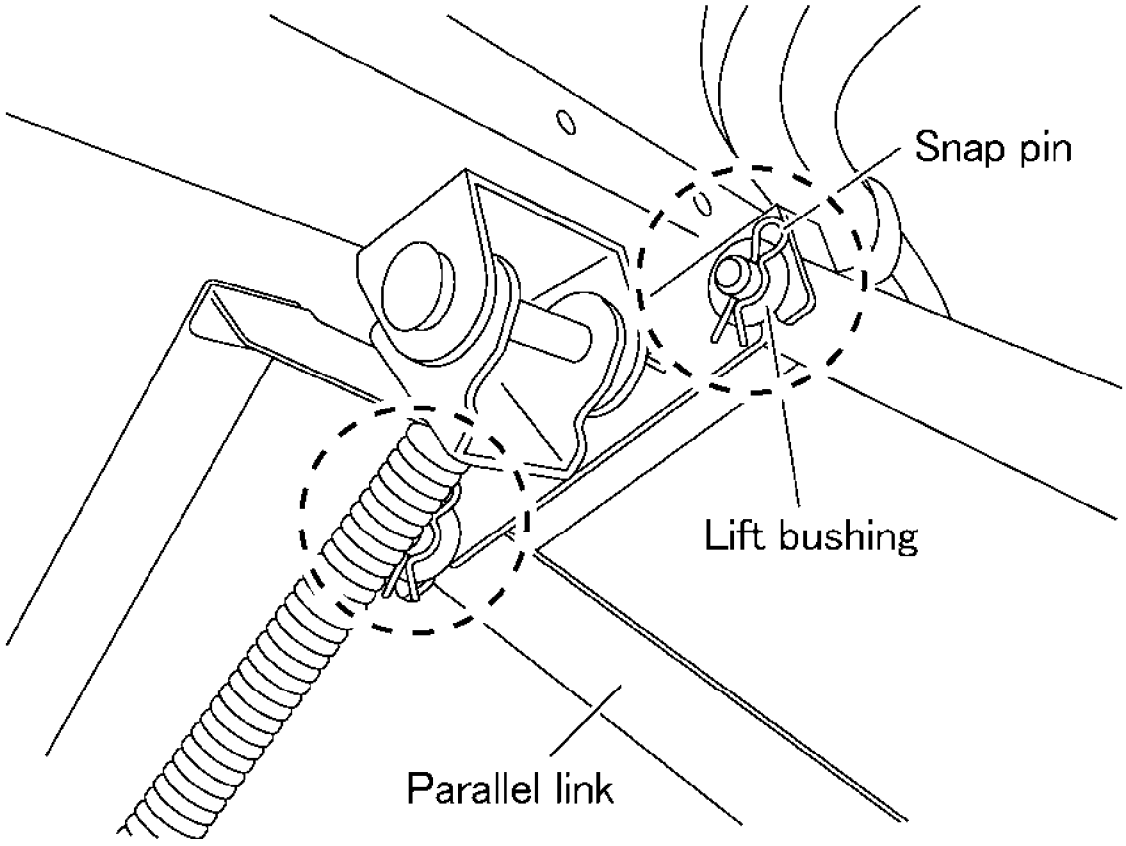


Caution when installing

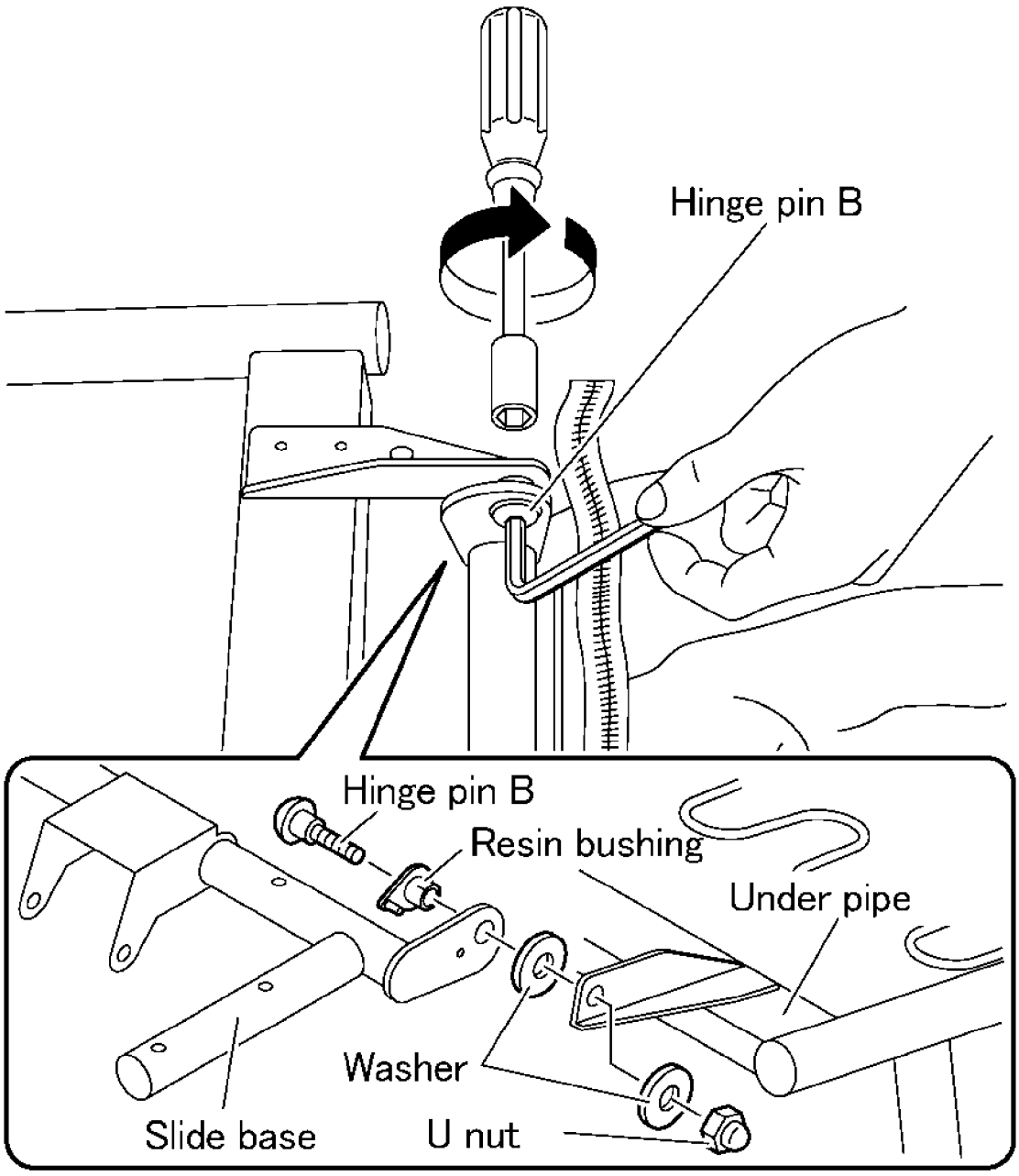
Be sure not to make the hook side of the Rod holder face the Seat, which might cause the tear.


Rod holder
Rod holder
Hook
Rod holder

8. Remove four Lift bushings and four Snap pins, and take off the Parallel link.



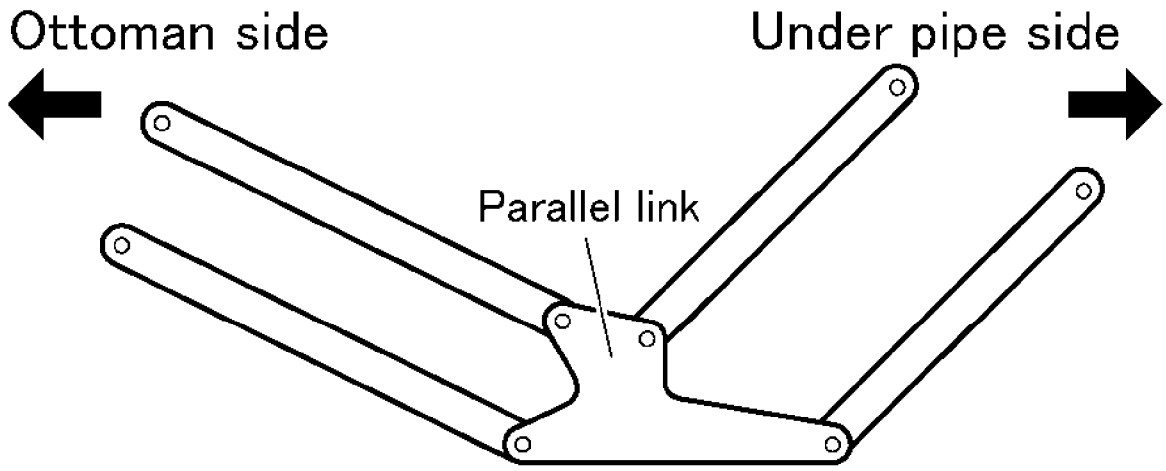
9. Take off the left/right Hinge pin Bs, Washers, and U nuts, and you can take off the Ottoman.

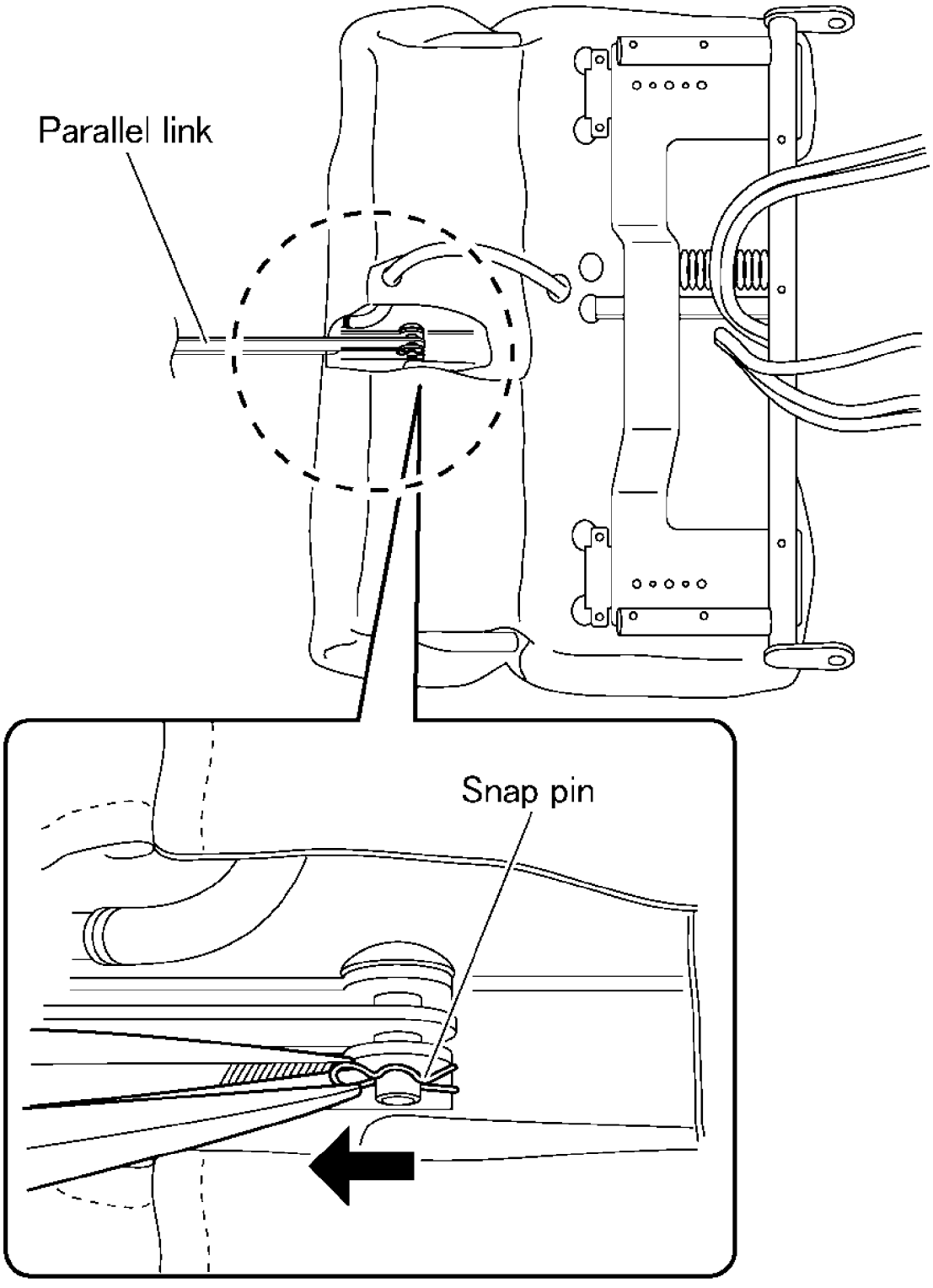


10. Pull out the Snap pin from the Ottoman and remove the Parallel link.

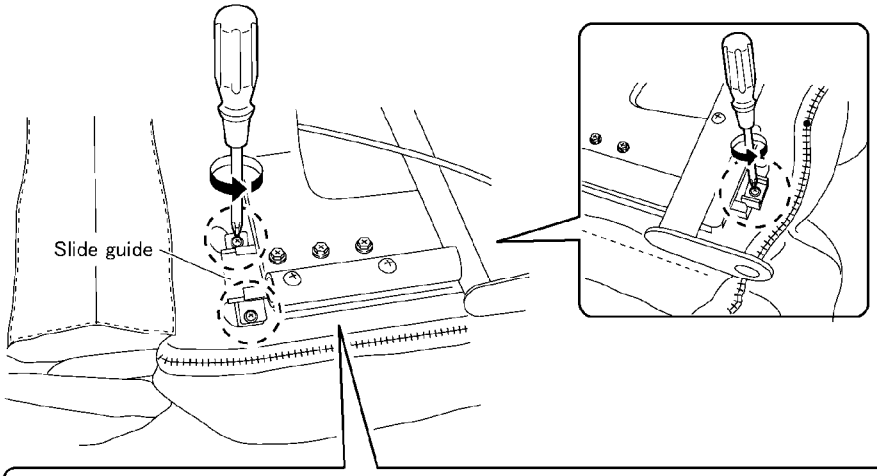
Caution when installing

Be careful of the directions when installing the Parallel link.


Ottoman side
Under pipe side
Parallel link

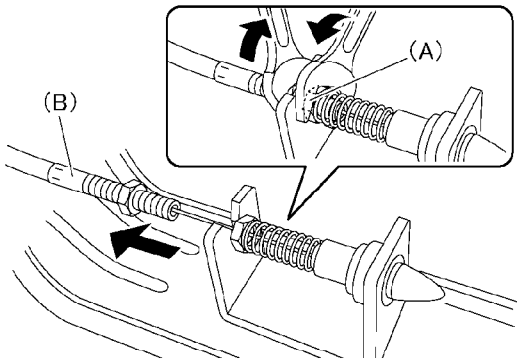

Parallel link
Snap pin

11. Unscrew three screws each at both sides of the Slide guide.

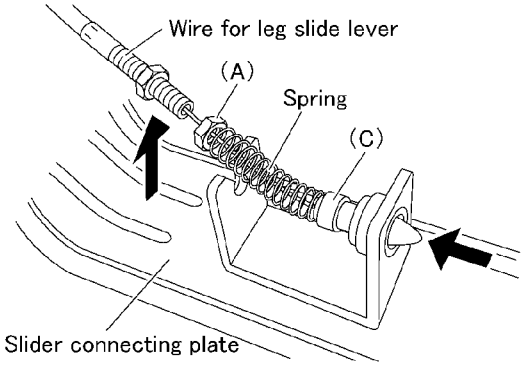


How to remove the Wire for leg slide lever

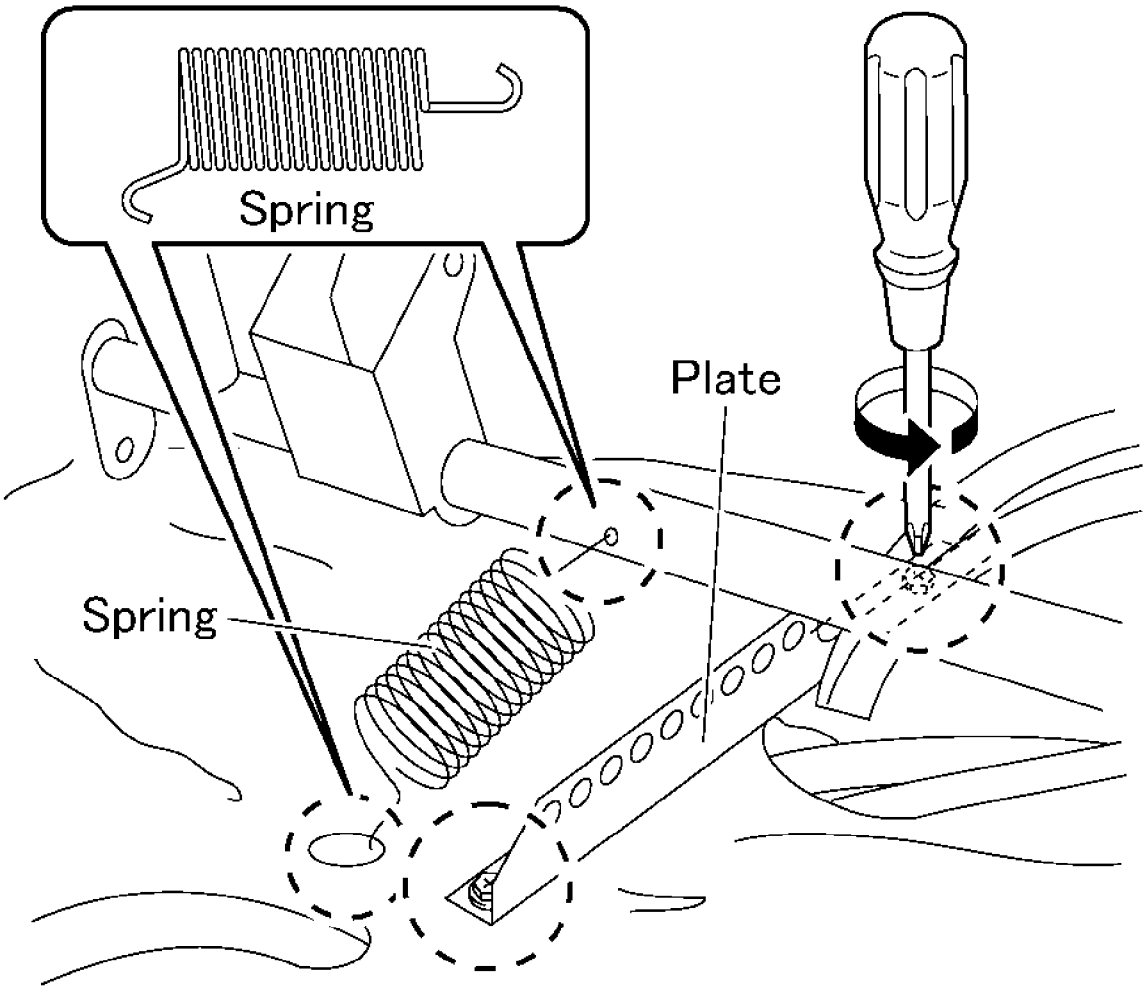
1.Turn the Hex nut(A) on the Leg slide lever, and pull away the bar(B) as the figure.



2.Remove the Hex nut spring(A) from the ditch, and move the (C) to the arrow and remove the Wire for leg slide lever from the Slider connecting plate.



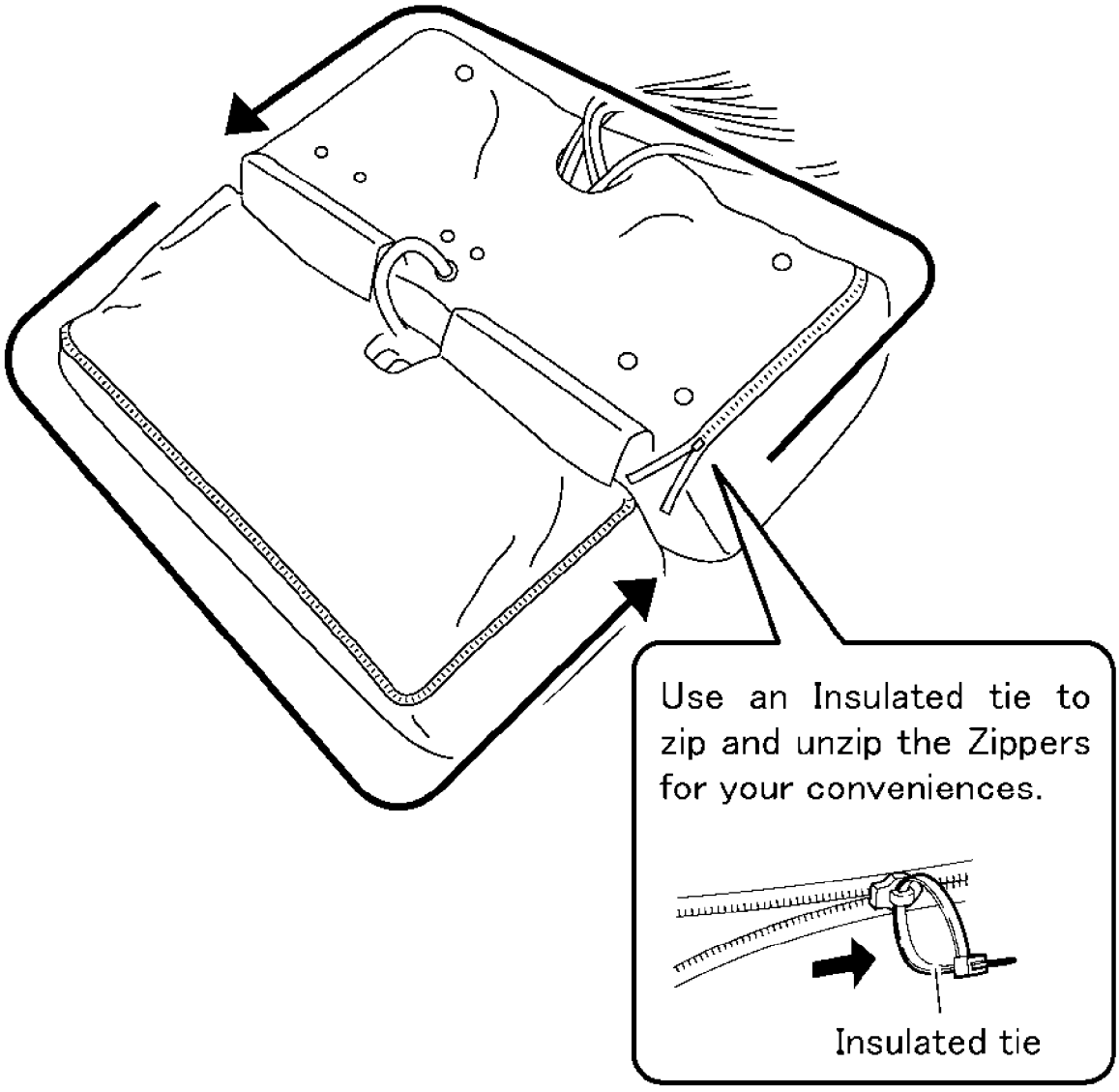
12. Unscrew two screws and remove the Spring.



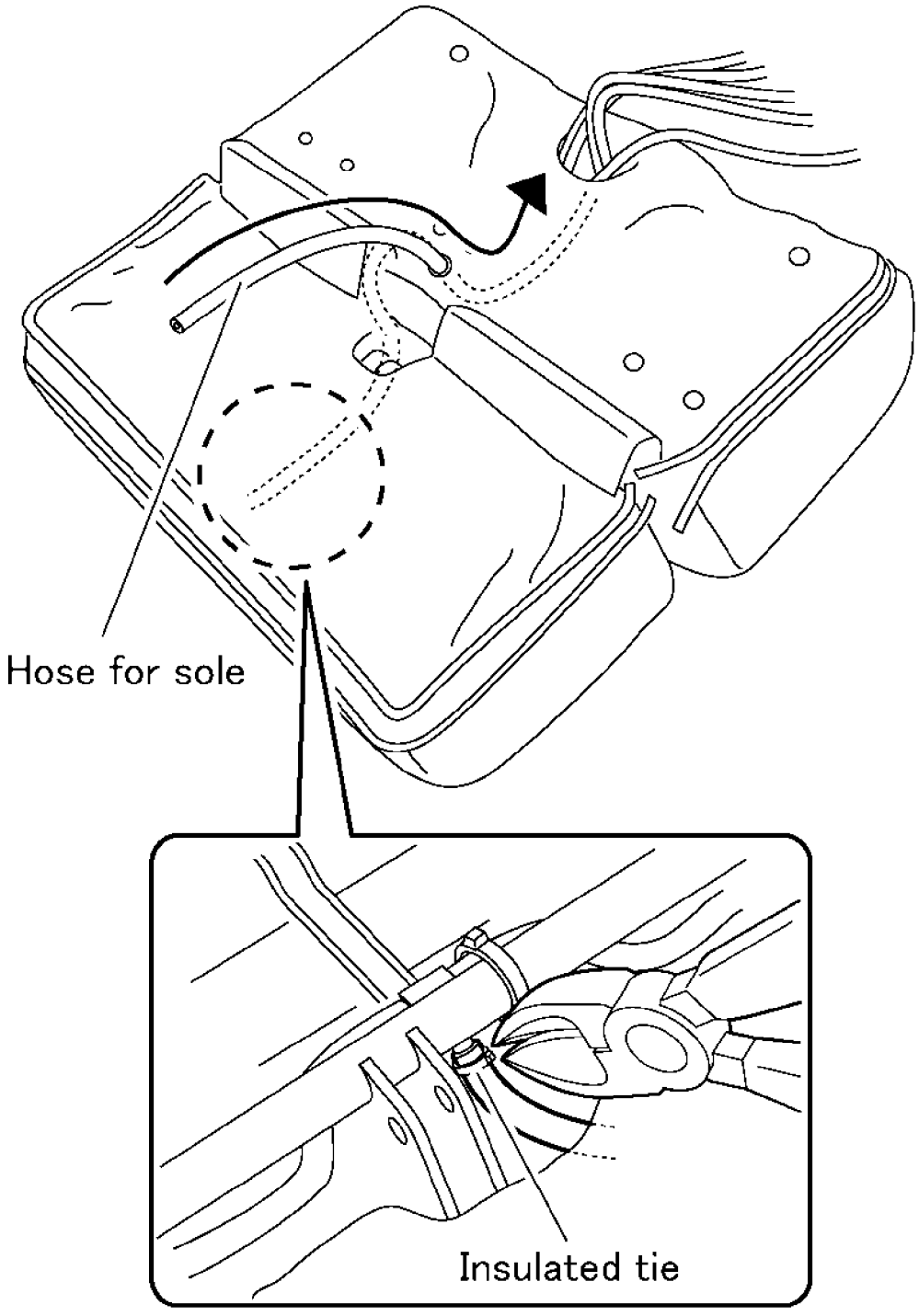
10.7.2. Removing the Air Ottoman fabric

1. Follow the procedure 10.7.1 Removing the Ottoman.

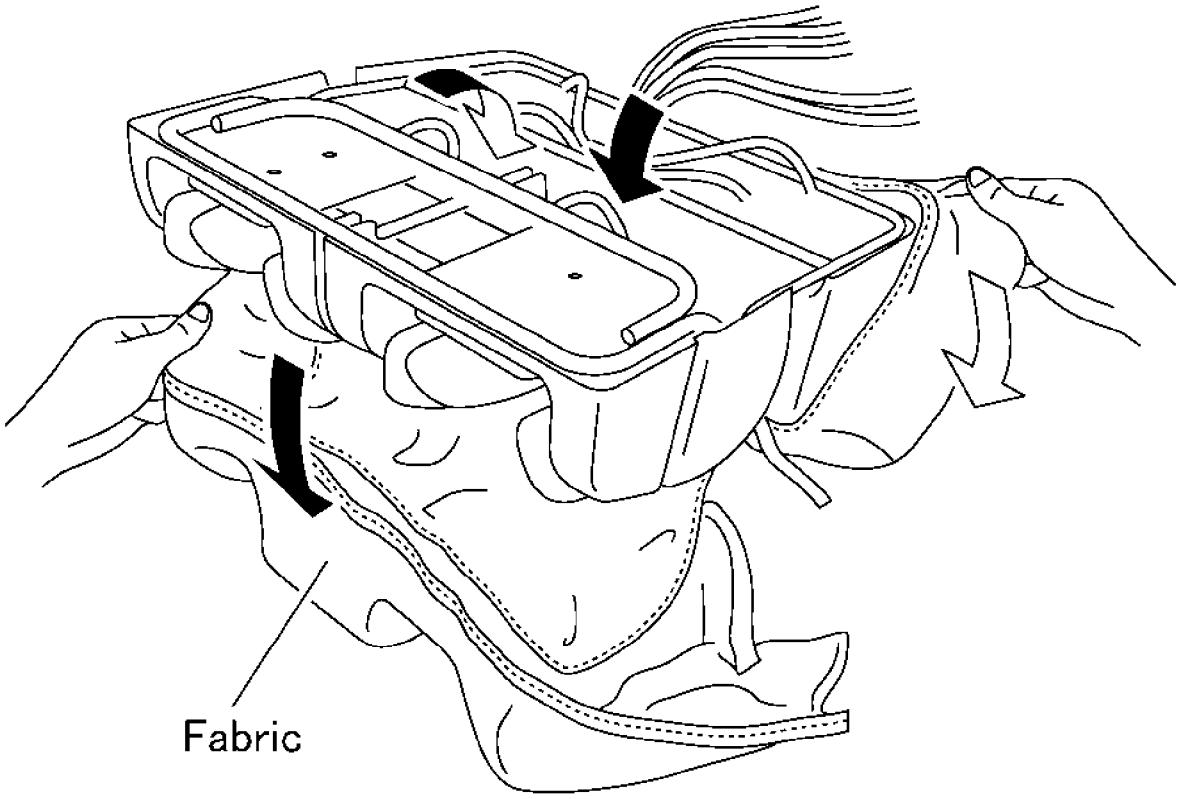
2. Unzip the Zippers(two) of the bottom of the Air Ottoman.



3. Cut off the Insulated tie on the Hose for sole, and pull off the Hose from the fabric.

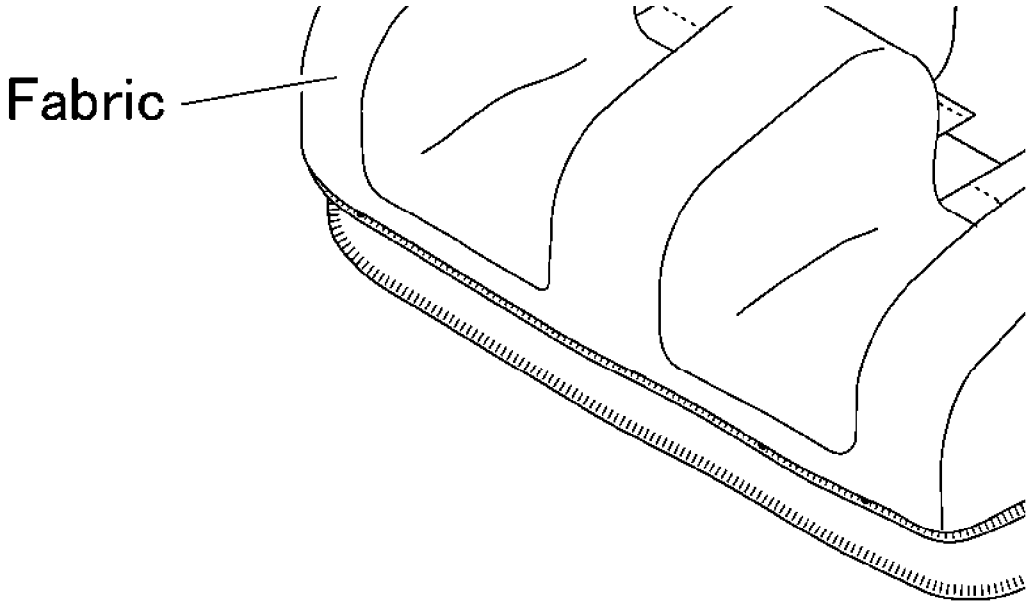


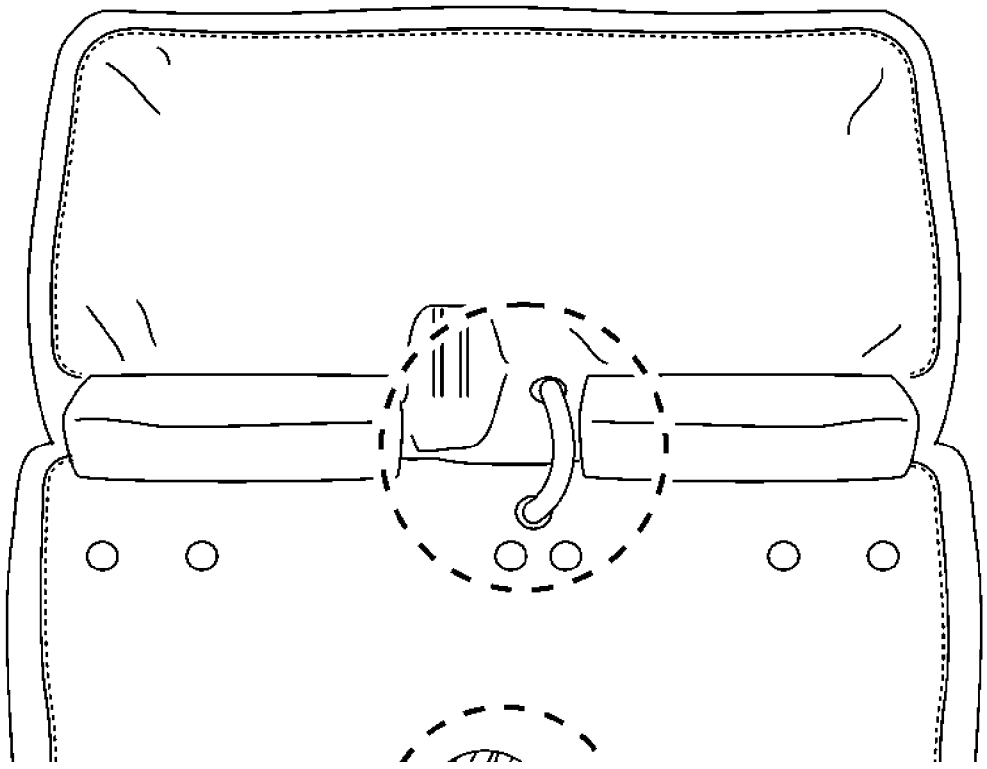
4. Remove the Fabric.

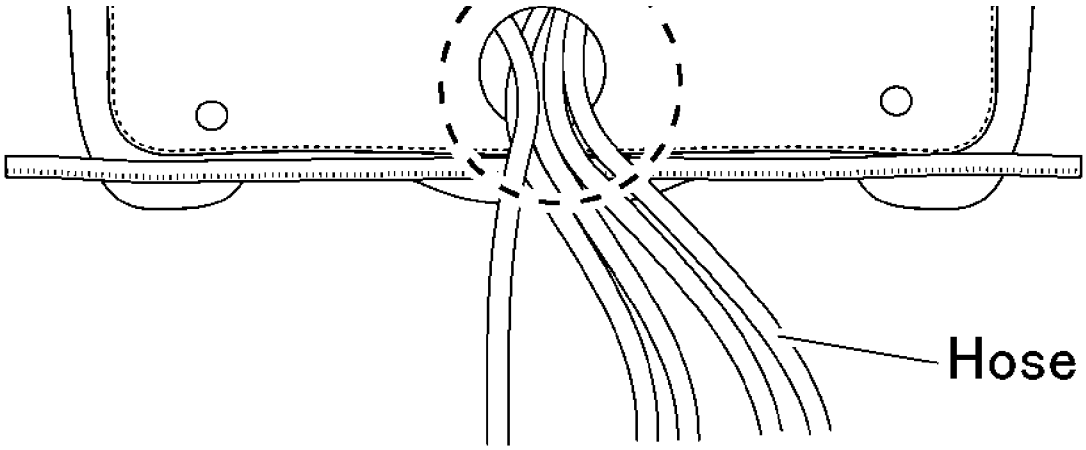


Caution when installing

***Be careful of the hole of the Fabric in which the Hose goes in when installing the Fabric.**


Fabric





10.7.3. Removing the Air Ottoman inside (Air bags, Hoses)

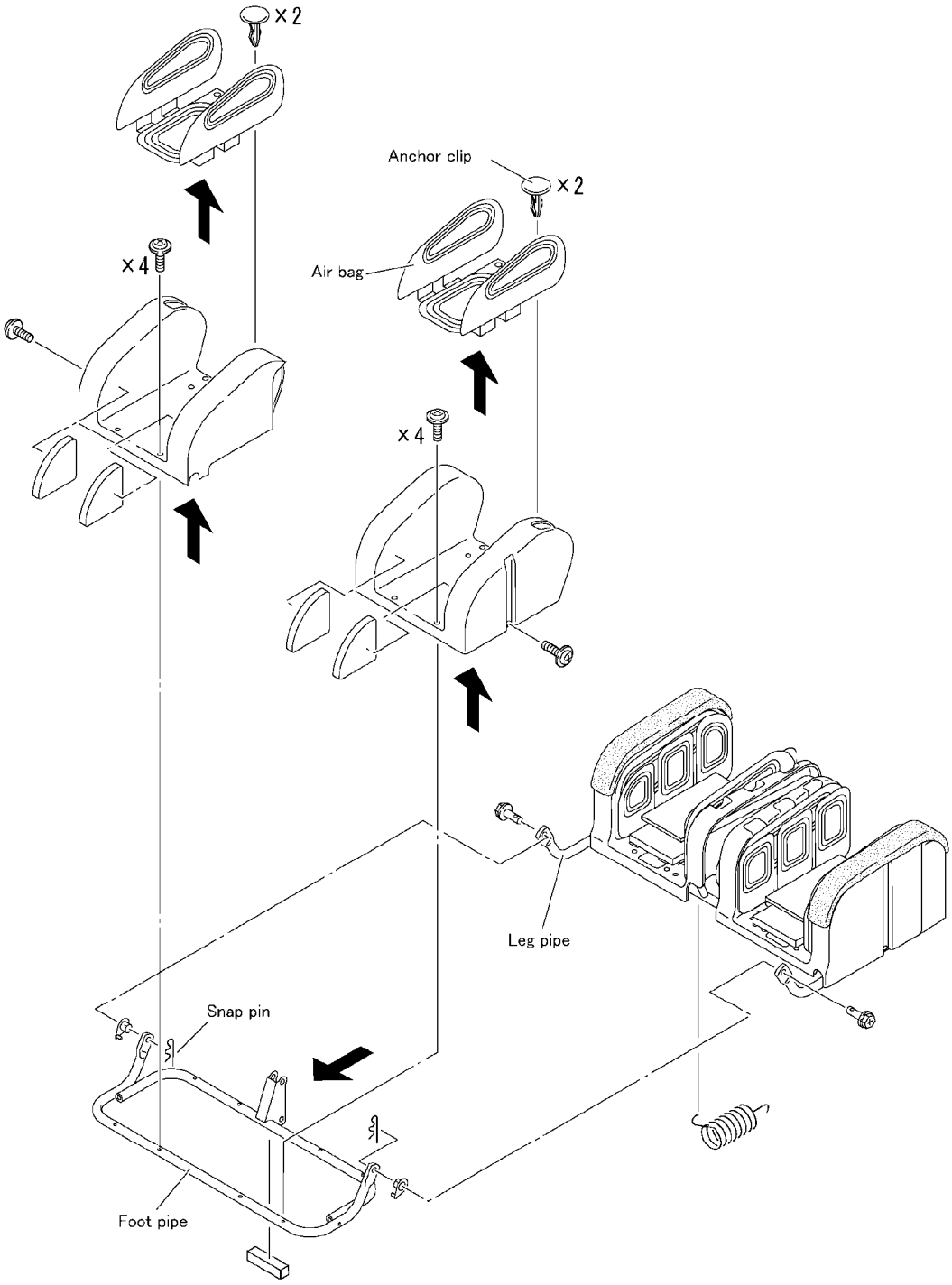
1. Follow the procedure 10.7.1 Removing the Air Ottoman and the procedure 10.7.2 Removing the Air Ottoman fabric.

2. Cut off all the Insulated ties binding Hoses.

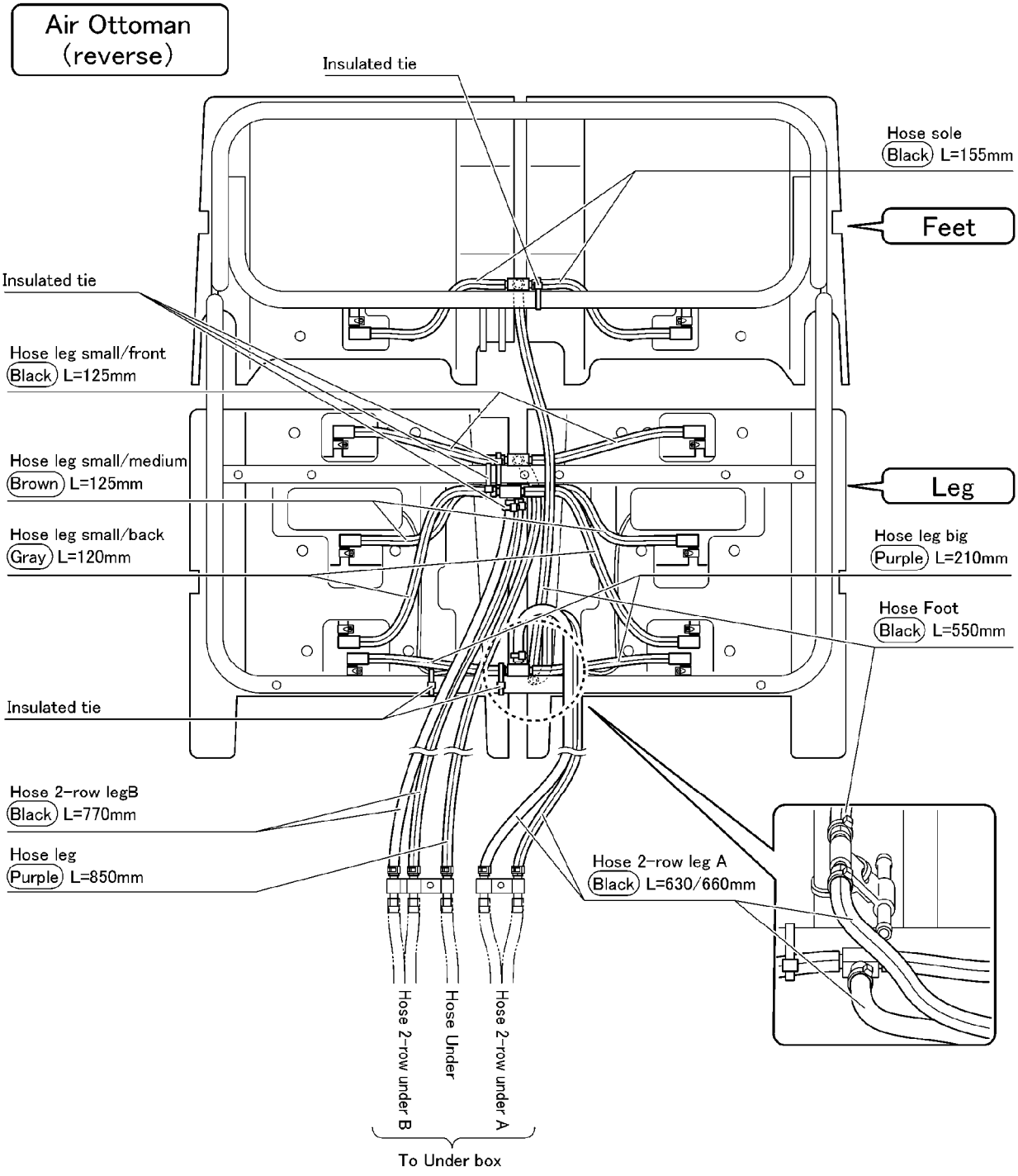
- **When installing the Insulated ties, refer to the 10.7.4 Air Ottoman hoses.**

3. Remove the Hinge pin minis and the Snap pins of the Leg pipe and the Foot pipe.

4. Remove the Anchor clips of the Air bags and remove Air bags.



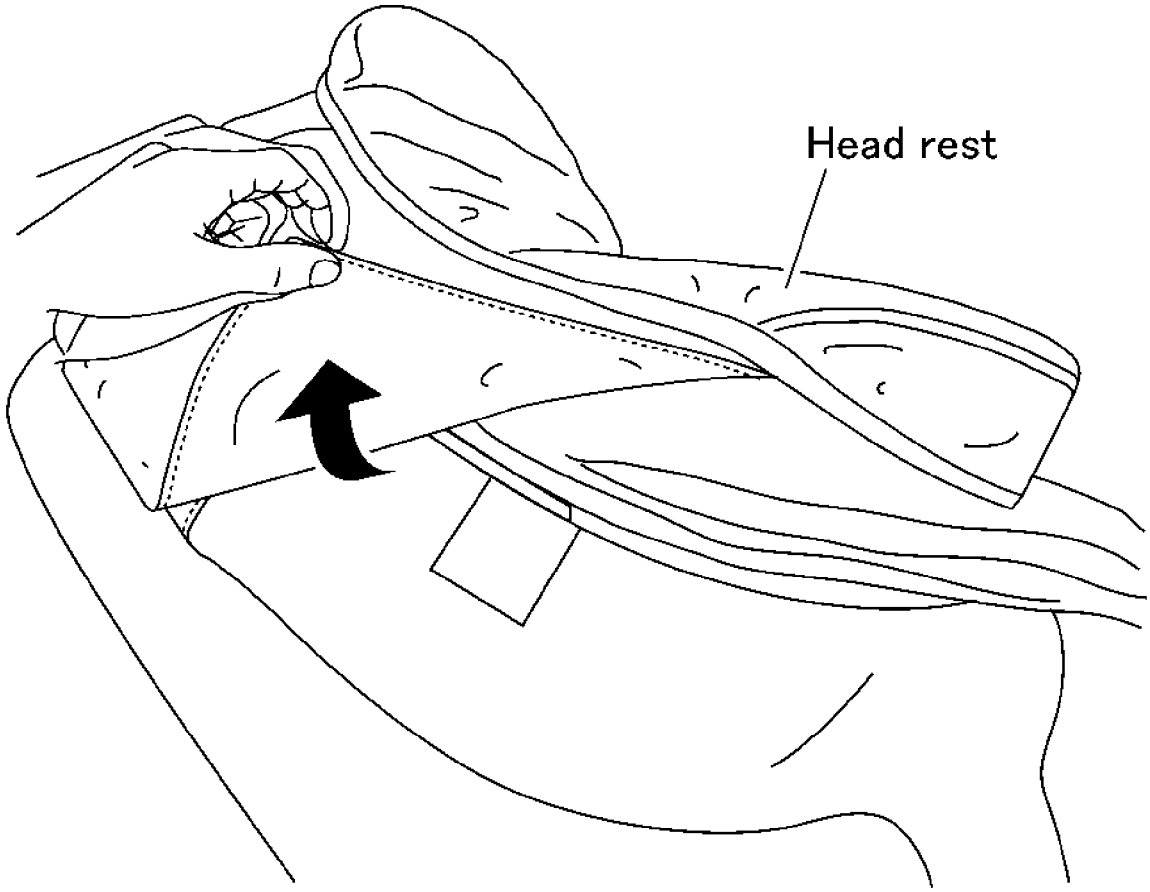
10.7.4. Air Ottoman hoses



10.8. Removing the Head rest, Back cushion, and Massage wheel cover

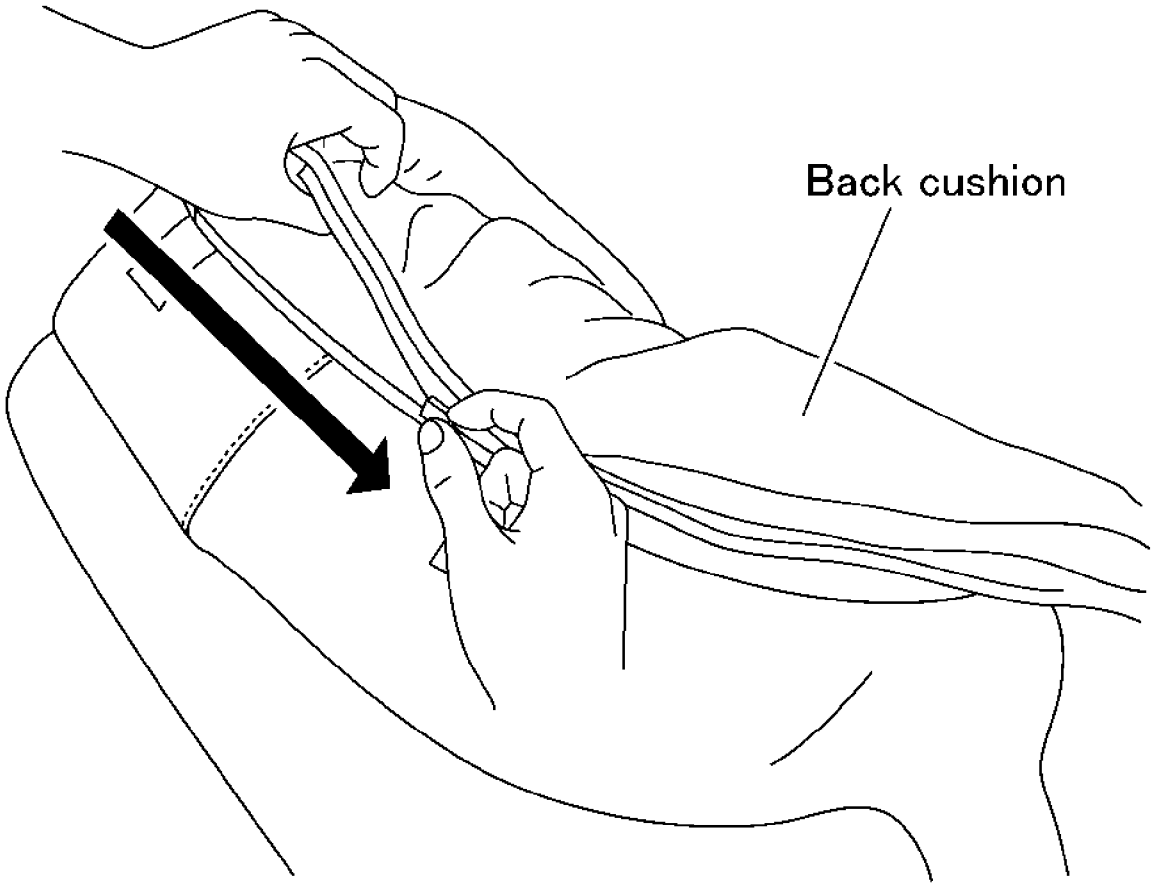
10.8.1. Removing the Head rest

1. Remove the Head rest.



10.8.2. Removing the Back cushion

1. Unzip the Zippers and remove the Back cushion.

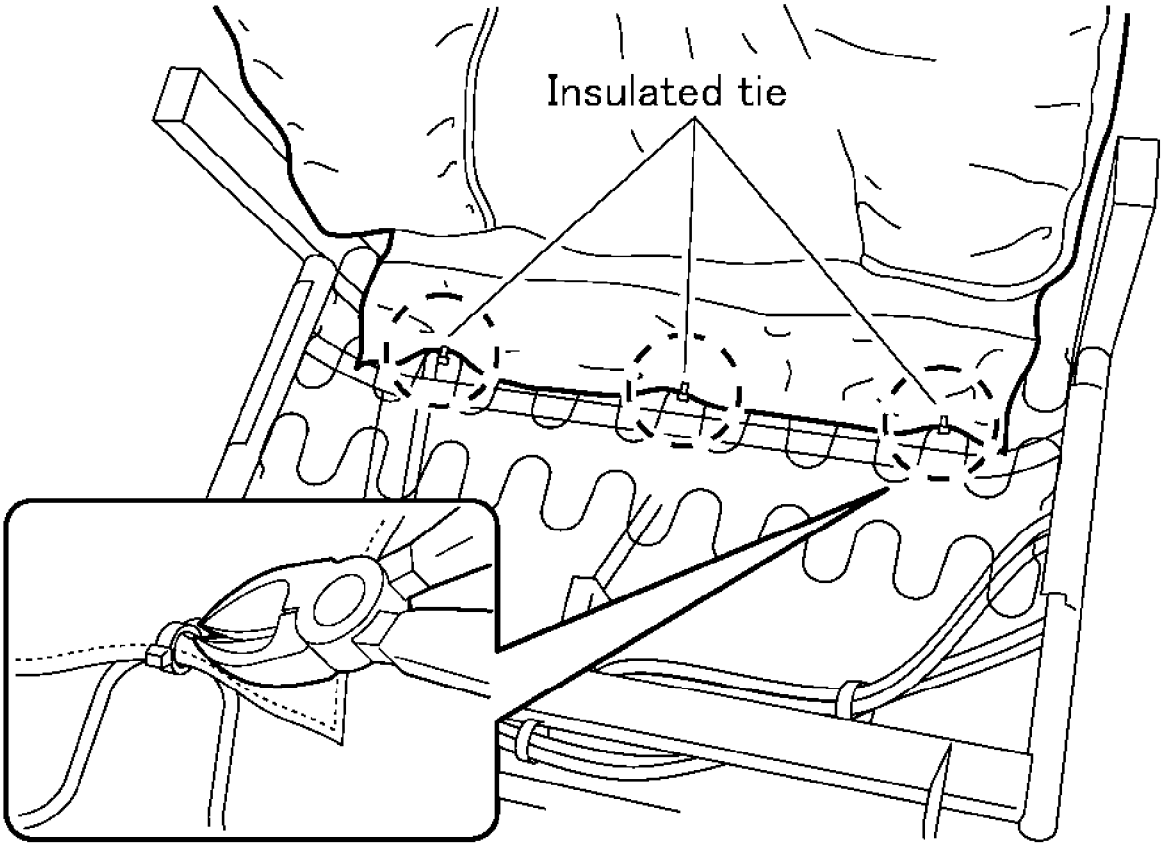


10.8.3. Removing the Massage wheel cover

***You can work without unloading the Massage mechanism block.**

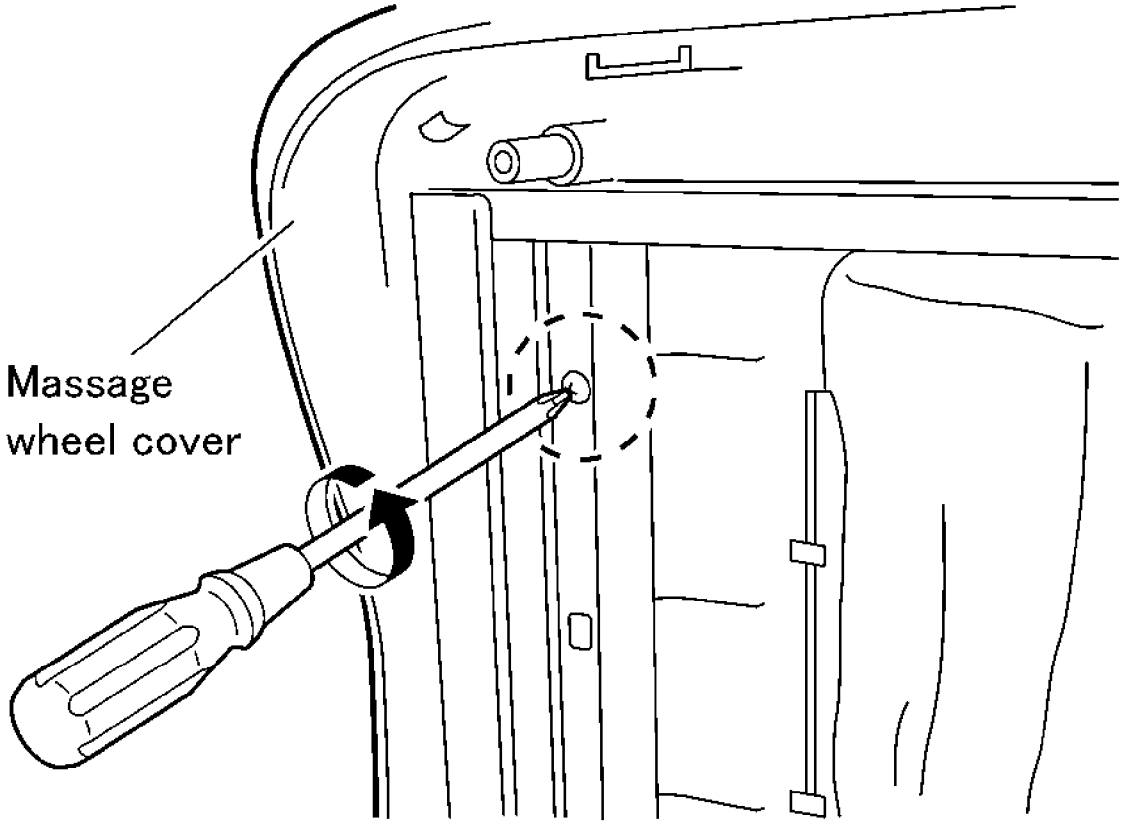
1. Follow the procedure 10.2.1 Removing the Back cover.

2. Cut off the three Insulated ties on the Seat panel.



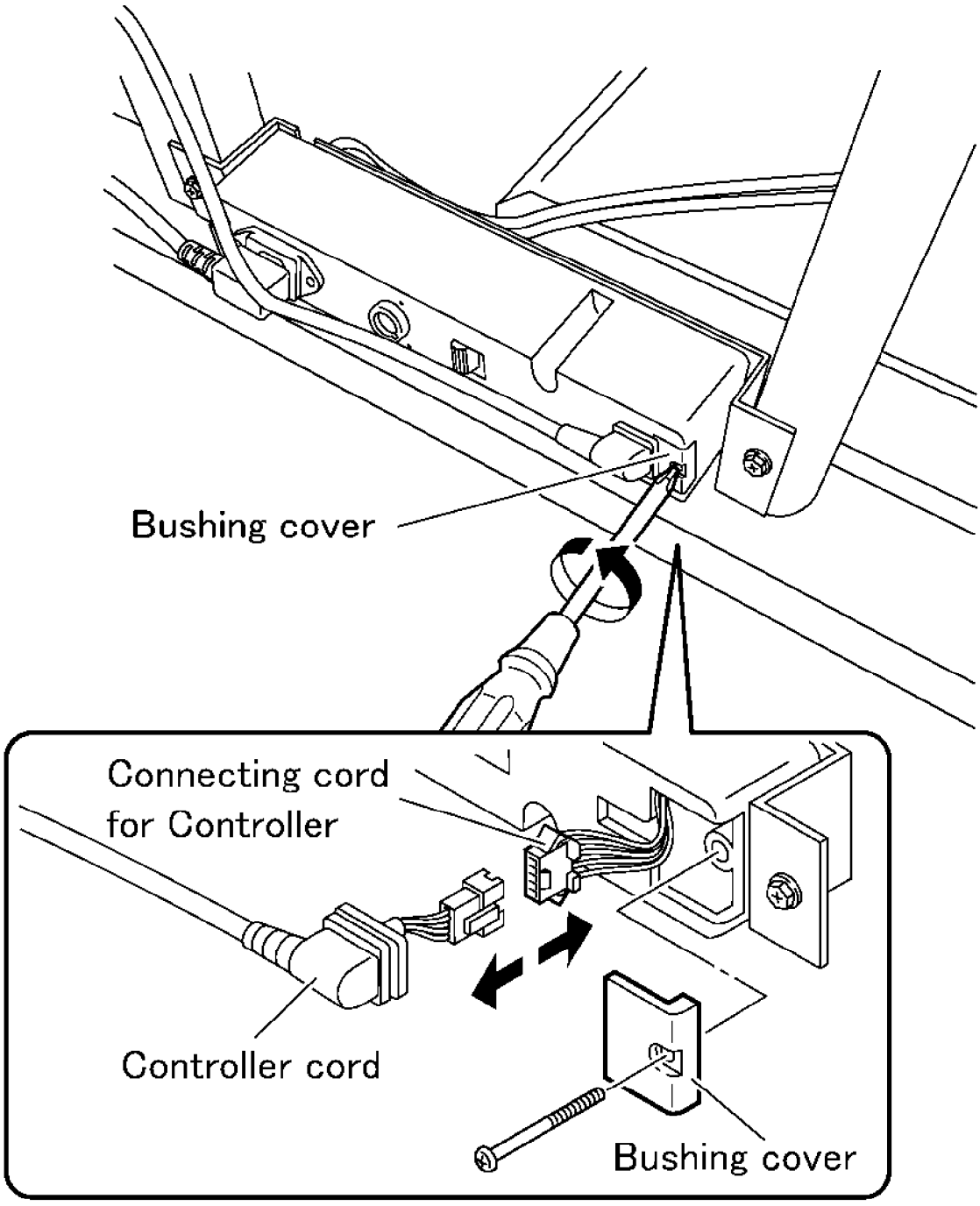
3. Unscrew eight screws on the Massage wheel cover and remove the Massage wheel cover.

***Move the Massage mechanism block up and down and unscrew screws.**

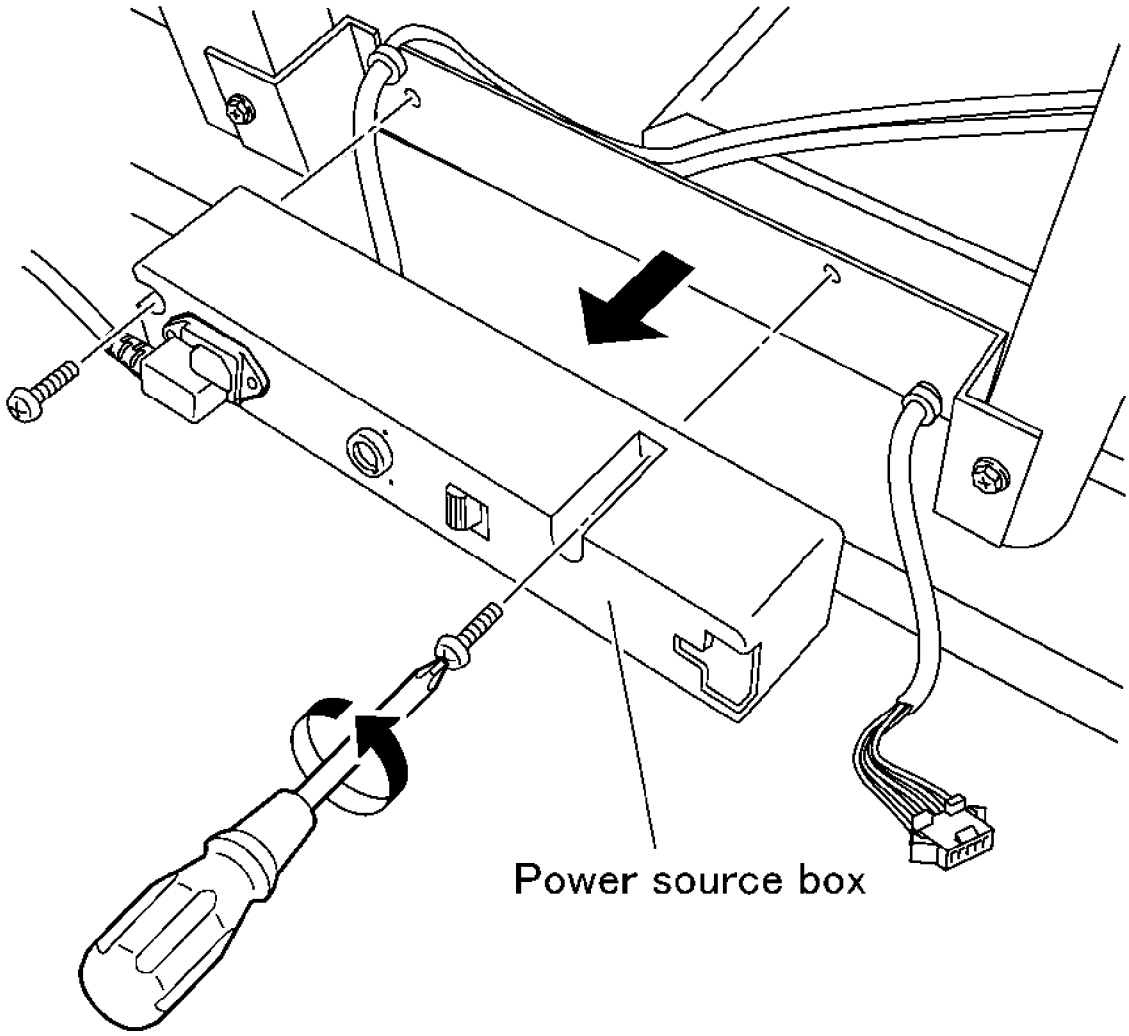


10.9. Removing the Power source box

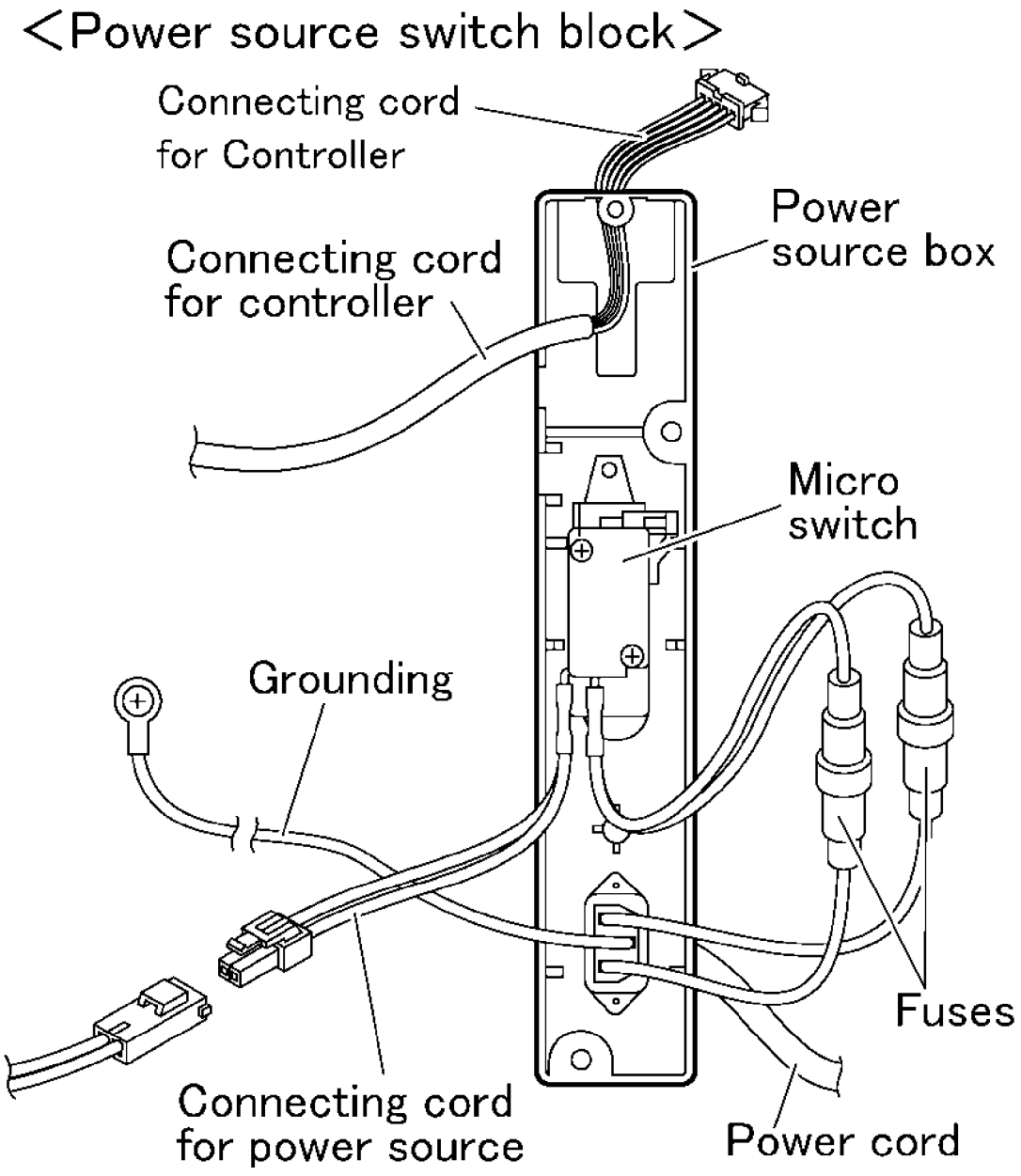
1. Unscrew a screw and remove the Bushing cover. Pull out the Controller cord and disconnect the Connector and you can remove the Controller block.
***Use a screwdriver so as not to break the screw head.**



2. Unscrew two screws and remove the Power source box.

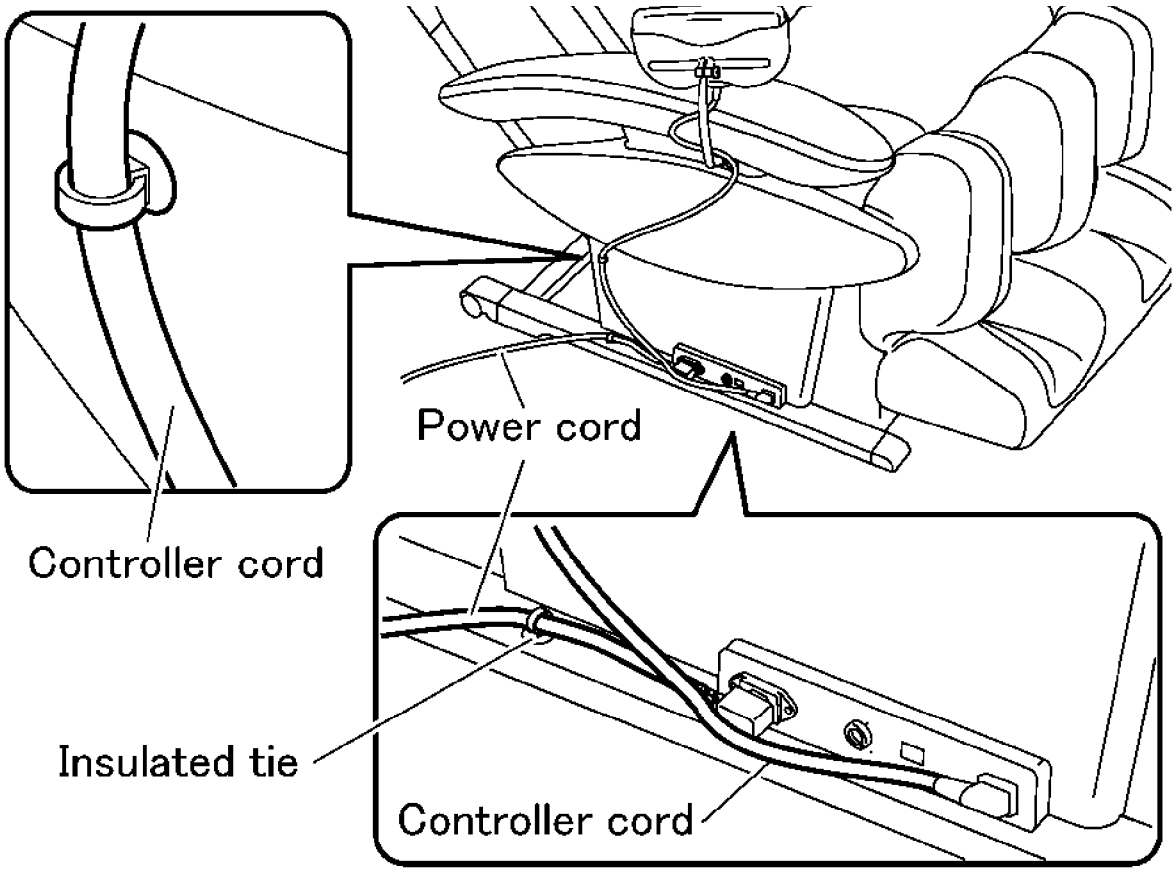


3. Micro switch, Fuses, Power cord, and switch can be removed.
***Be careful not to break the screw heads.**



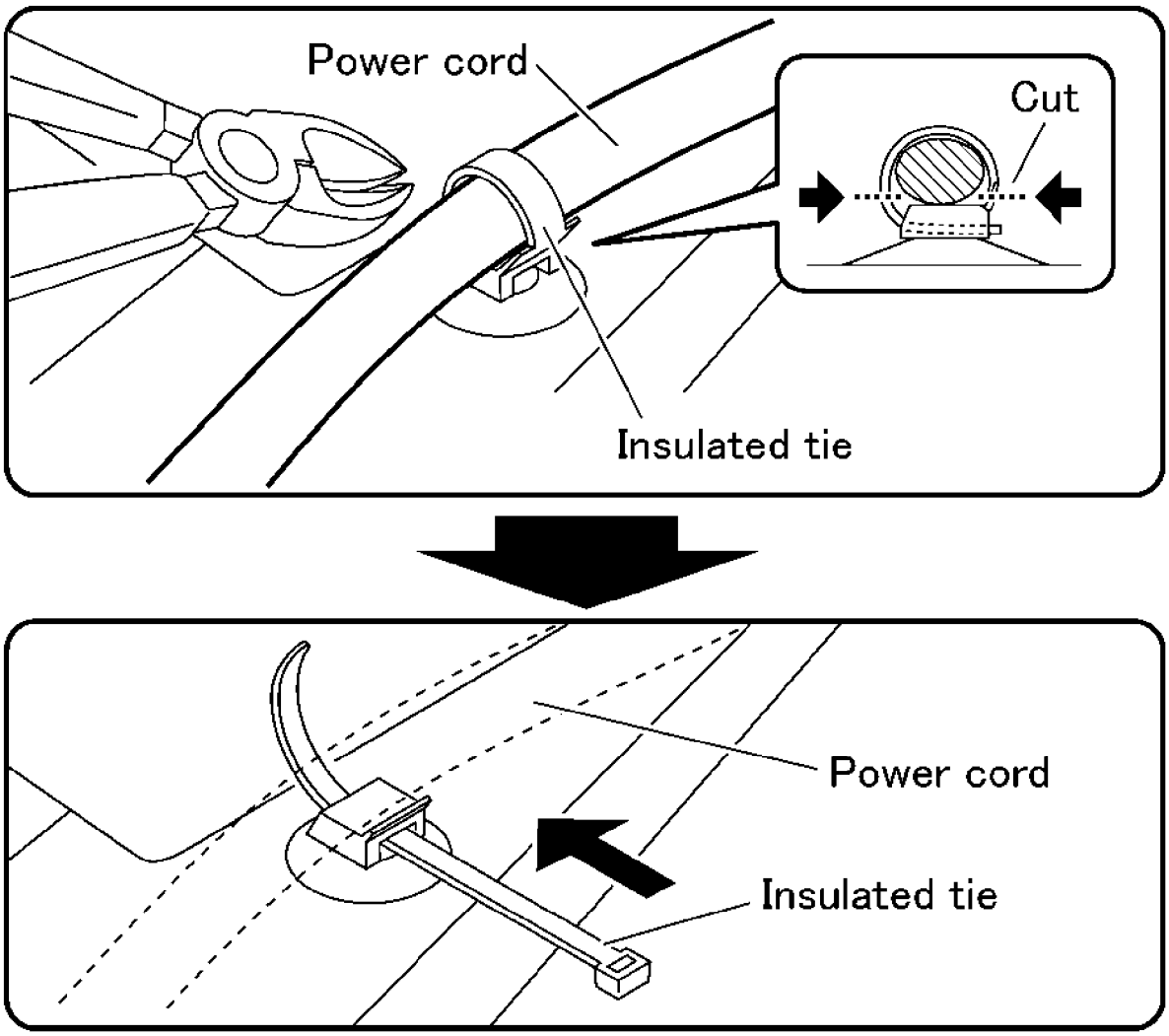
Caution when installing Controller cord and Power cord

Refer to the figure when installing cords.



Caution when removing and installing the Power cord

Cut the Insulated time at two parts as the figure and use the new Insulated tie and fix the Power cord.



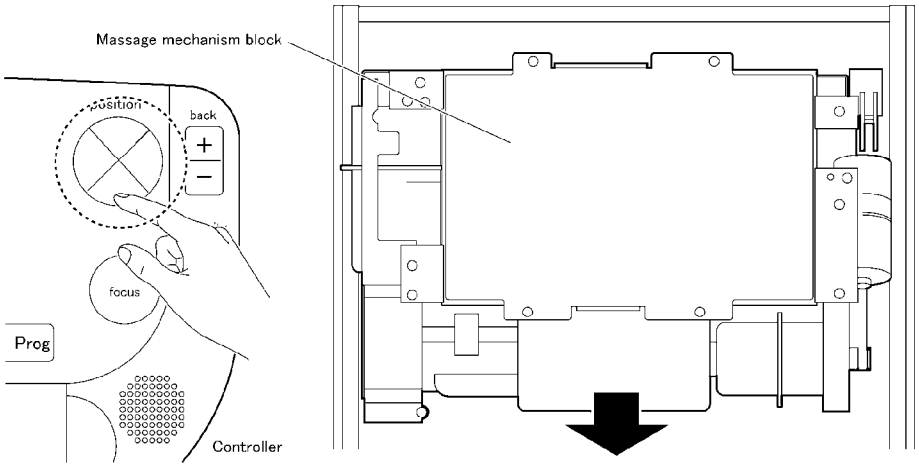
10.10. Adjustment of the Up/down sensor gear

When the Massage mechanism block is removed from the chair, the position of the Up/down sensor gear changes resulting in a change of the up/down stop position. When installing the Massage mechanism block on the back frame, be sure to adjust the position with the Up/down sensor gear.

***Up/down sensor gear position adjustment procedure**

To make an adjustment, refer to the Massage mechanism block removing method (the back frame is tilted from the chair).

1. Before mounting, the Massage mechanism block on the back frame must be moved down to the lowest position by setting the controller manual operation massage head adjustment button to Down.



2. Make sure that the Massage mechanism block has been mounted horizontally by moving the Massage mechanism block to the position shown in the figure. Unless the Massage mechanism block has been mounted horizontally, an abnormal sound or problem may occur.

3. Move it up to the highest position (until the massager stops) by setting the controller manual operation
Massage head adjustment button to up.

4. Peeping into the square hole of the back frame, check the position of the massager to adjust.
***One thread of the up/down detection gear gives a stroke change of 4mm.**

When the massager has been raised excessively : Turn the up/down detection gear counterclockwise to adjust.

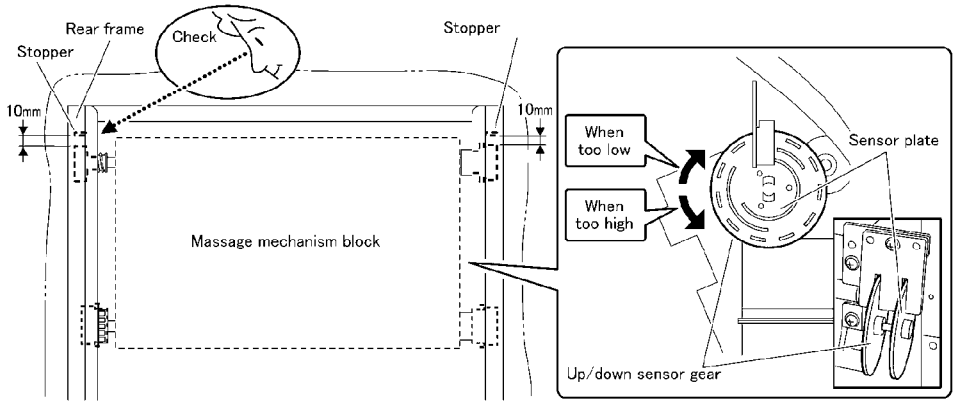
When the massager has been lowered excessively : Turn the up/down detection gear clockwise to adjust.

While adjusting the distance between the square hole and Guide roller assy. to 10mm, check by using the up/down adjustment button found on the manual operation panel of the controller.

5. Install the rail piece A and B, and tighten uniformly the set screws (left and right,

3 pcs. each).

6. Using the manual operation of the controller, conduct the rolling operation. Set the massage heads adjustment switch to level 1, and check the up/down stroke.

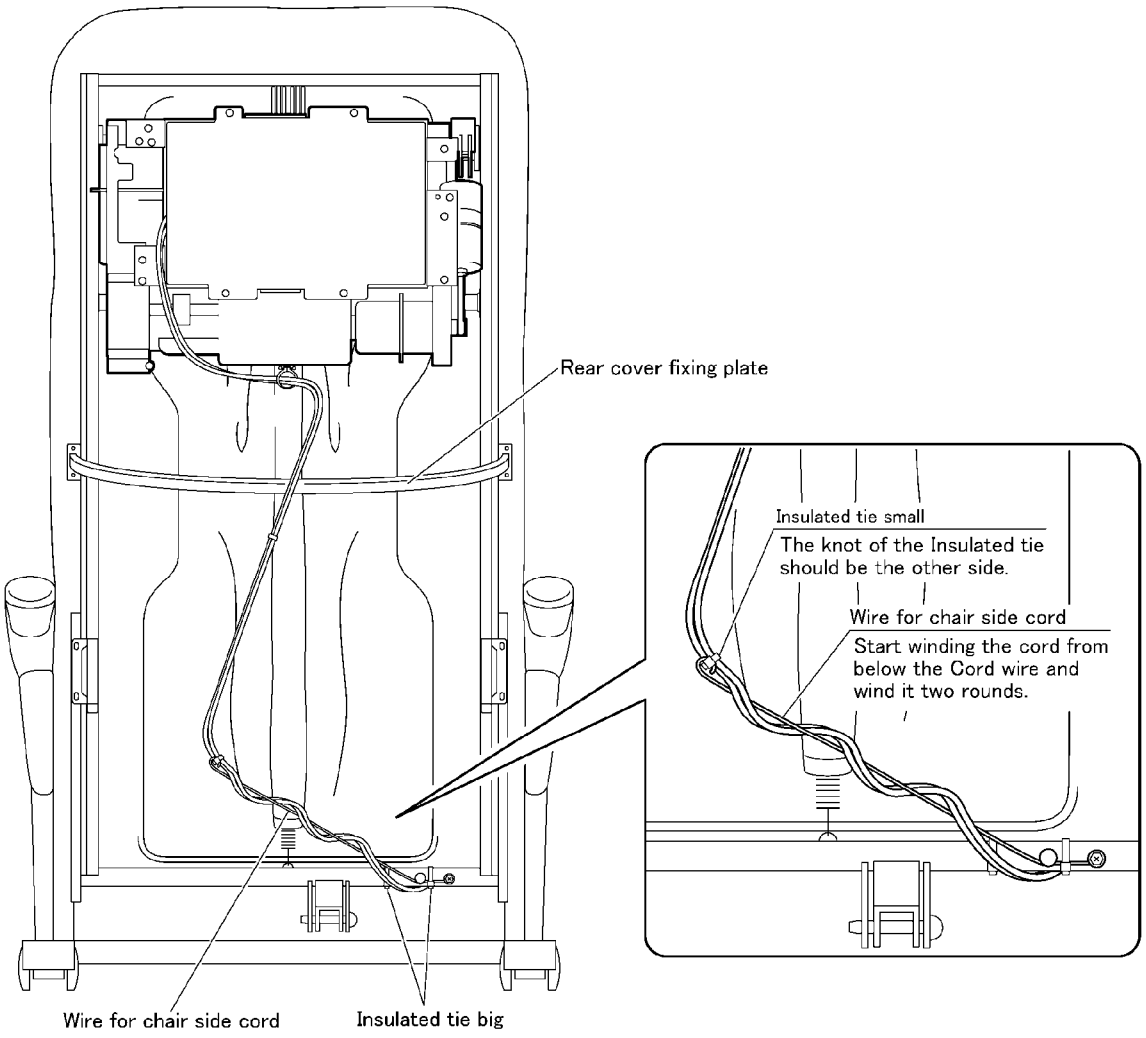


10.11. Installing the Connecting cord for power source

Move the Massage mechanism block to the highest position.
***After installing each Connecting cords, be sure to confirm that each Connecting cords do not touch belts or Rear cover fixing plate or being stuck in the gear by operating the Up/down button in the controller manual mode. Also confirm that each Connecting cords are not extremely tense at the highest position.**

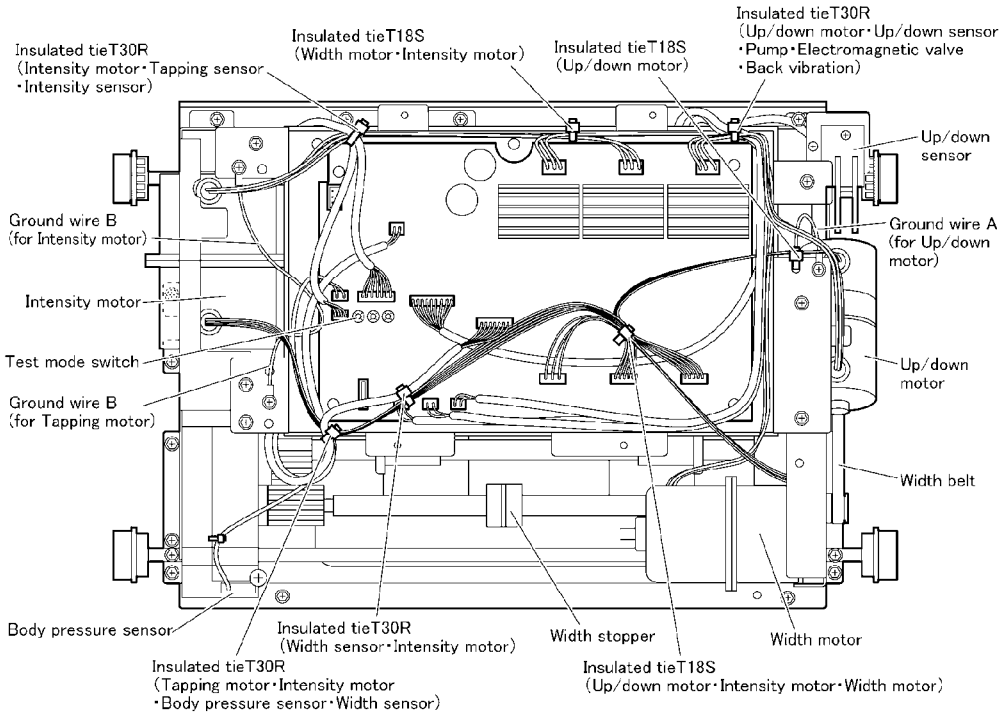
Caution

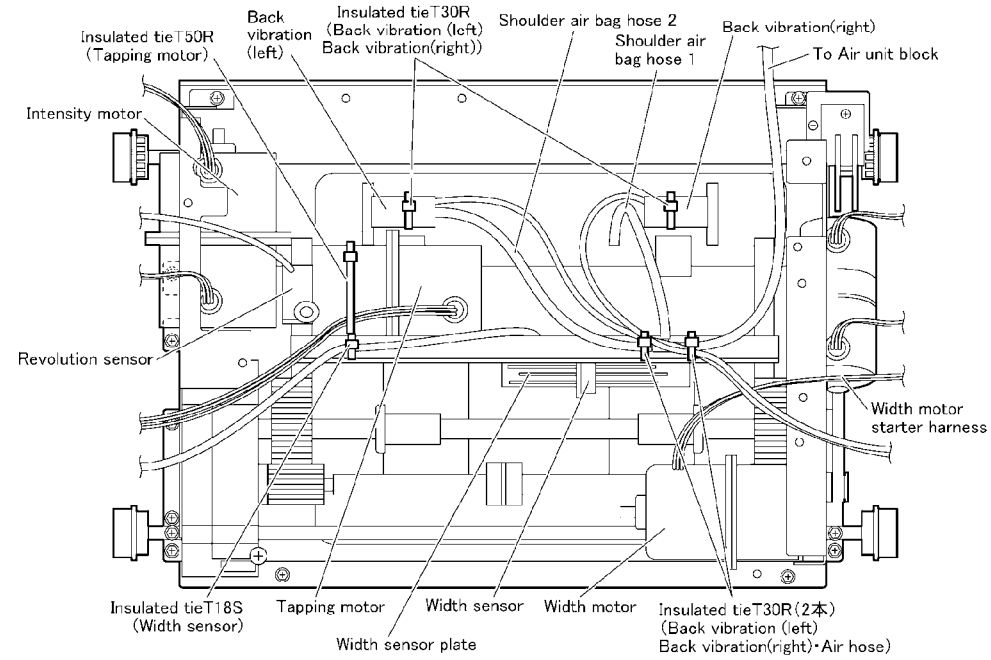
After moving the Massage mechanism block to the highest position, install the Rear cover so as to avoid each Connecting cords being stuck. Wind the cords around the Wire.


Rear cover fixing plate
Insulated tie small
The knot of the Insulated tie should be the other side.
Wire for chair side cord
Start winding the cord from below the Cord wire and wind it two rounds.
Wire for chair side cord
Insulated tie big

10.12. Lead wires of Massage mechanism block

Refer to the following figure for the fixing of the Main PCB, motors, sensors, parts, and Insulated ties.





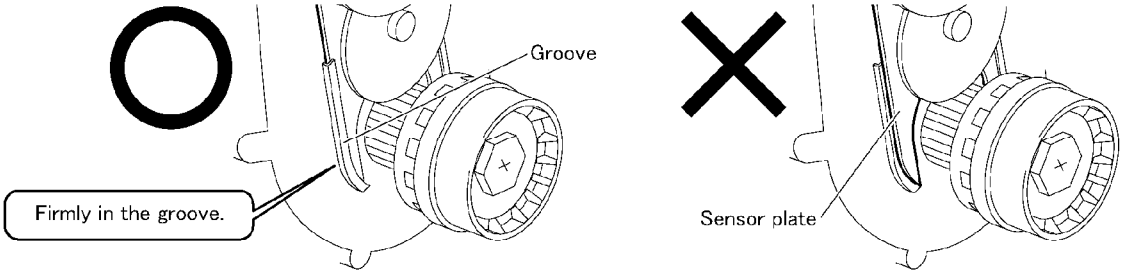
10.13. Assembly and disassembly of Massage mechanism block

10.13.1. Removing the Up/down sensor

1. Disconnect the Connector (CN206)(1) on the Main PCB.
2. Cut off the Insulated tie medium (2) of the lead wires.
3. Unscrew two installation screws (3) of the Up/down gear box B and the Up/down sensor plate and remove the Up/down sensor.

   Caution when installing

   When installing the Up/down sensor, be sure to insert the Sensor plate to the groove of the Up/down gear box B.

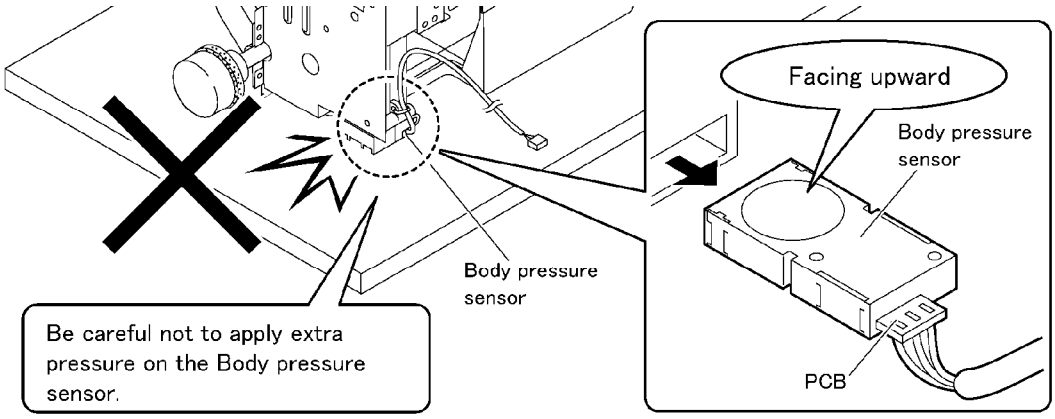


10.13.2. Removing the Body pressure sensor

1. Disconnect the Connector (CN206)(4) on the Main PCB.
2. Cut off the Insulated tie medium (5) and the Insulated tie small (6) of the lead wires.
3. Unscrew a screw (7) of the Intensity gear box B.
4. Remove the Body pressure sensor(8).

   Caution when installing

   - When removing the Body pressure sensor, do not pull the Lead wires strongly. Handle the PCB carefully.
   - Be careful of the installation directions.
   - When installing the Body pressure sensor, make the 0-point adjustment with loaded on the Massage mechanism block.


Facing upward
Body pressure sensor
Body pressure sensor
Be careful not to apply extra pressure on the Body pressure sensor.
PCB

10.13.3. Removing the Intensity sensor

1. Disconnect the Connector (CN205) (9) on the Main PCB.
2. Cut off the Insulated tie medium (10) of the lead wires.
3. Unscrew a screw (11) of the Massage mechanism block and the Intensity sensor plate.

   Caution when installing

   - Make sure that the grooves of the Massage mechanism block frame and the Intensity sensor meet each others.
   - When fixing Lead wires with insulated ties, be careful so that Lead wires do not hook anything.

10.13.4. Removing the Width sensor

1. Disconnect all the Connectors on the Main PCB.
2. Cut off the four Insulated ties medium (2) (5) (10) (18), one small (12).
3. Unscrew five screws (13) on the Main PCB installation plate and four screws (14) and three screws (15).
4. Cut off two Insulated tie medium (16) of the Air hoses and unscrew two screws (17).
5. Take off the Snap pin of the Sensor plate.

   Caution when installing

   - When fixing Lead wires with insulated ties, make sure that the Lead wires are not pulled moving the Massage mechanism block for the Intensity directions.

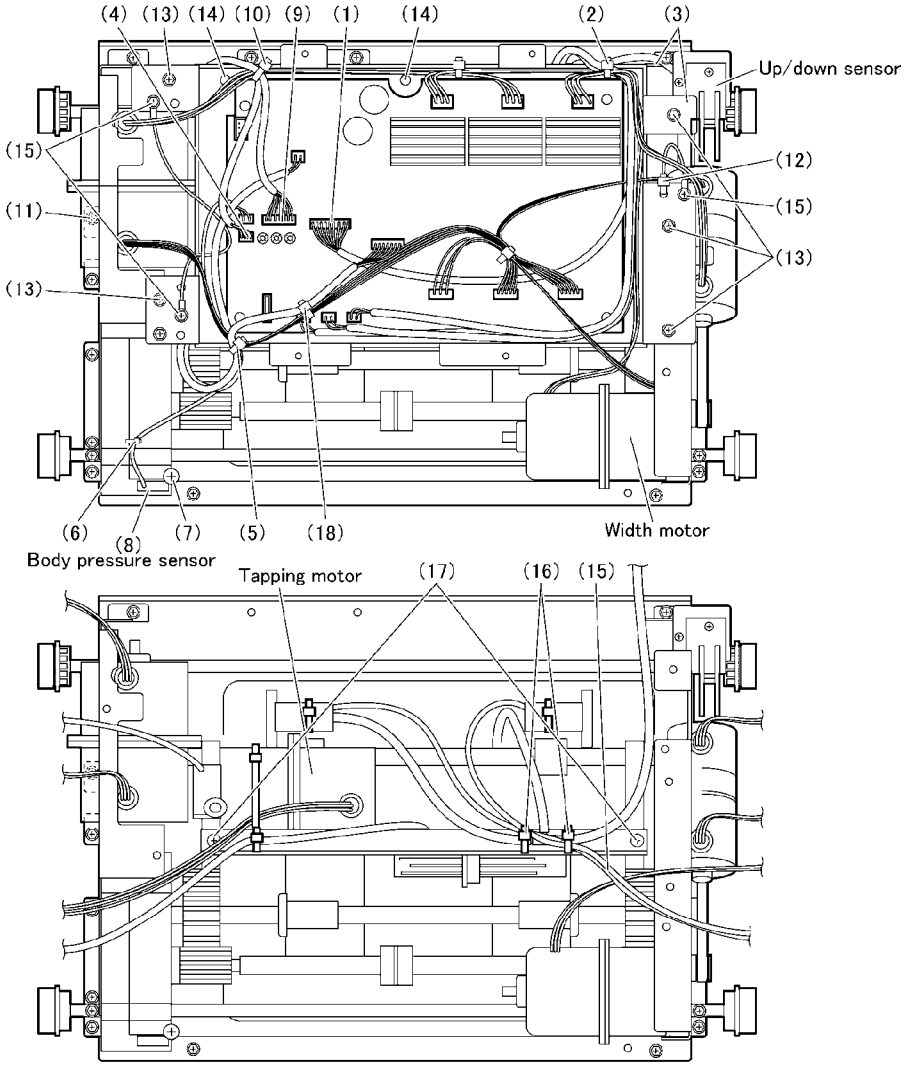
10.13.5. Removing the Tapping sensor

***Follow the procedure 10.13.4 Removing the Width sensor 1-3.**

1. Unscrew a screw of the Tapping sensor.

Caution when installing

- When fixing Lead wires with insulated ties, make sure that the Lead wires are not pulled moving the Massage mechanism block for the Intensity directions.

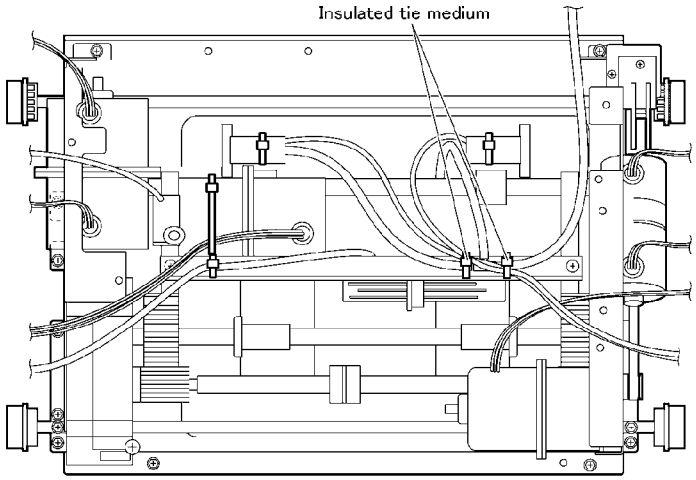


10.13.6. Removing the Air unit

1. Disconnect Connectors (CN201, CN208) of the Main PCB.
2. Unscrew five screws of the Main PCB installation plate and four screws of the Air unit.
3. Cut off the Insulated tie medium of the Air hoses.

Caution when installing

- You can remove the Air unit with the five screws loose of the Main PCB installation plate.



10.13.7. Removing the Width motor

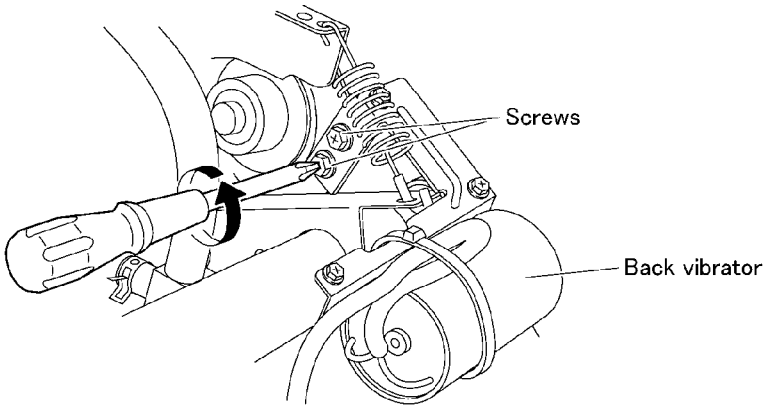
1. Disconnect Connectors (CN102, CN500) of the Main PCB.
2. Cut off one Insulated tie medium, and two small.
3. Remove the Width belt.
4. Unscrew four screws of the Width motor.

10.13.8. Removing the Back vibrator

1. Disconnect Connectors (CN2102, CN211) of the Main PCB.
2. Cut off three Insulated ties medium of the Lead wires.
3. Unscrew two screws of the Back vibrator.

Caution when removing

- It would be easy to remove the Air unit if you set the Massage balls at widest and strongest.



10.13.9. Removing the Shoulder holding Air bags

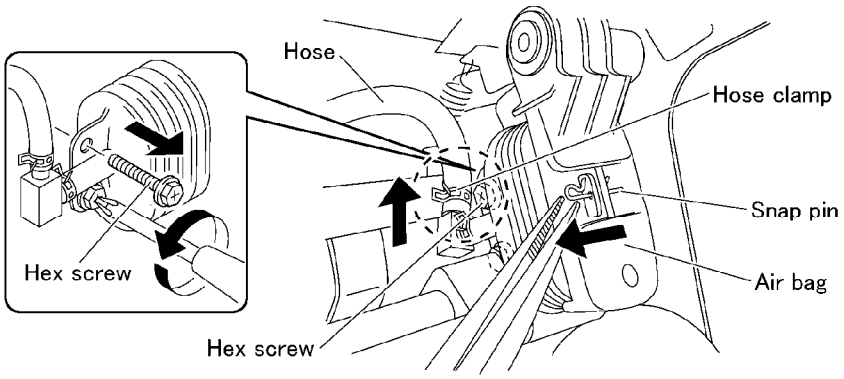
1. Remove the Massage mechanism block from the Rear frame.
2. Unscrew two Hex screws of the Air bags.
3. Take off the Snap pins of the Air bags.
4. Move the Hose clamps, and remove the Air bags from the hoses.

Caution when installing

- Be careful of the installation directions of the Hose clamps and the Snap pins.

Caution when removing

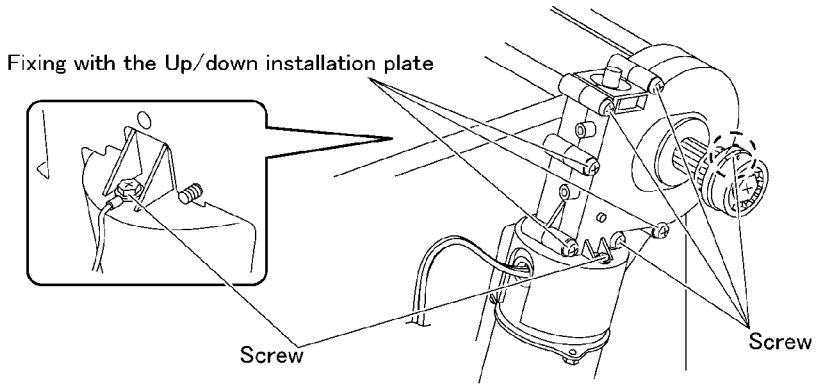
- It would be easy to remove the Air bags if you set the Massage balls at widest and strongest.



10.13.10. Removing the Up/down gear block

***You should disassemble the Up/down gear block before replacing the Up/down shaft and the Up/down motor.**
***Follow the procedure 10.13.4 Removing the Width sensor 1-3.**

1. **Remove the Massage mechanism block from the Rear frame.**
2. **Unscrew 14 screws of the Massage mechanism frame, Up/down driving installation plate, and Intensity driving installation plate.**
3. **Lift the Up/down block and the Intensity block at the same time and remove the Up/down from the Massage mechanism block.**
4. **Unscrew two screws of the Up/down sensor installation plate.**
5. **Unscrew three screws of the Up/down gear box and the Up/down driving installation plate.**
6. **Unscrew four screws of the Up/down gear box A, B.**
7. **Unscrew two screws of the Up/down gear box and the Up/down motor.**



10.13.11. Removing the Intensity gear block

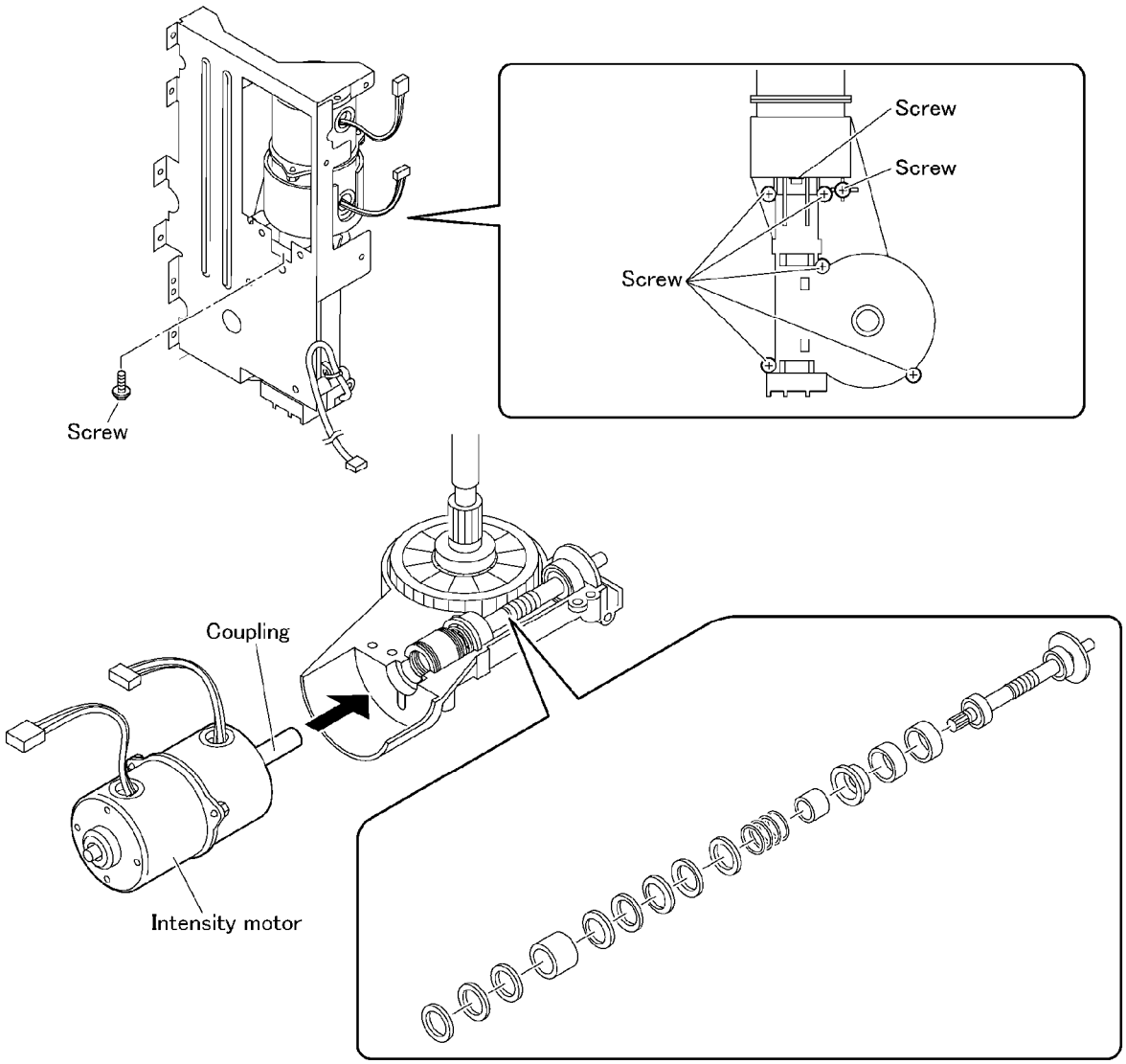
***Follow the procedure 10.13.4 Removing the Width sensor 1-3.**
***Follow the procedure 10.13.10 Removing the Up/down gear block 1-3.**

1. Unscrew five screws of the Intensity gear box and the Intensity driving installation plate.

2. Unscrew two screws of the Intensity gear box and the motor, and one screw of the Intensity gear box A.B.

Caution when installing

It would be easy if you rotate the Intensity worm shaft by hand when inserting the Intensity motor shaft to the coupling.



10.13.12. Removing the Width driving block

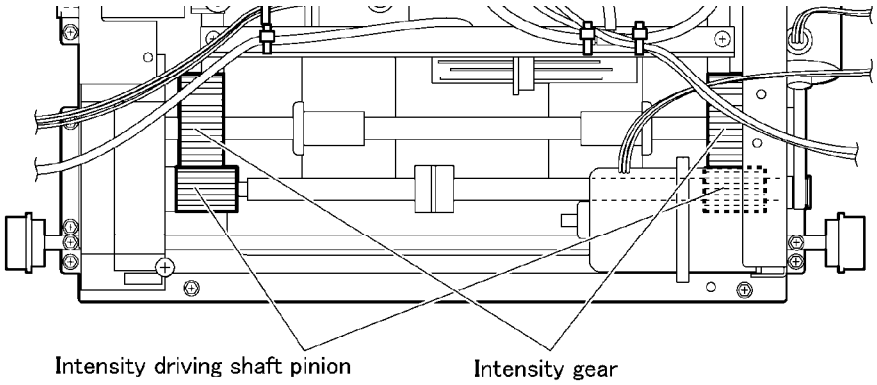
***Follow the procedure 10.13.4 Removing the Width sensor 1-3.**
***Follow the procedure 10.13.10 Removing the Up/down gear box 1-3.**

1. Take off the clamps of the Shoulder air bag hose 1.2 and remove the Width driving block.

2. Unscrew four screws of the Back vibrator left/right.
Caution when installing

- When installing the Width driving block, install the Intensity driving shaft pinion and the Intensity gear with each gears bitten correctly. You do not need to adjust the position with the Intensity sensor.

*If you operate the Massage chair with the gears bitten incorrectly, it may cause the crack of the gears.



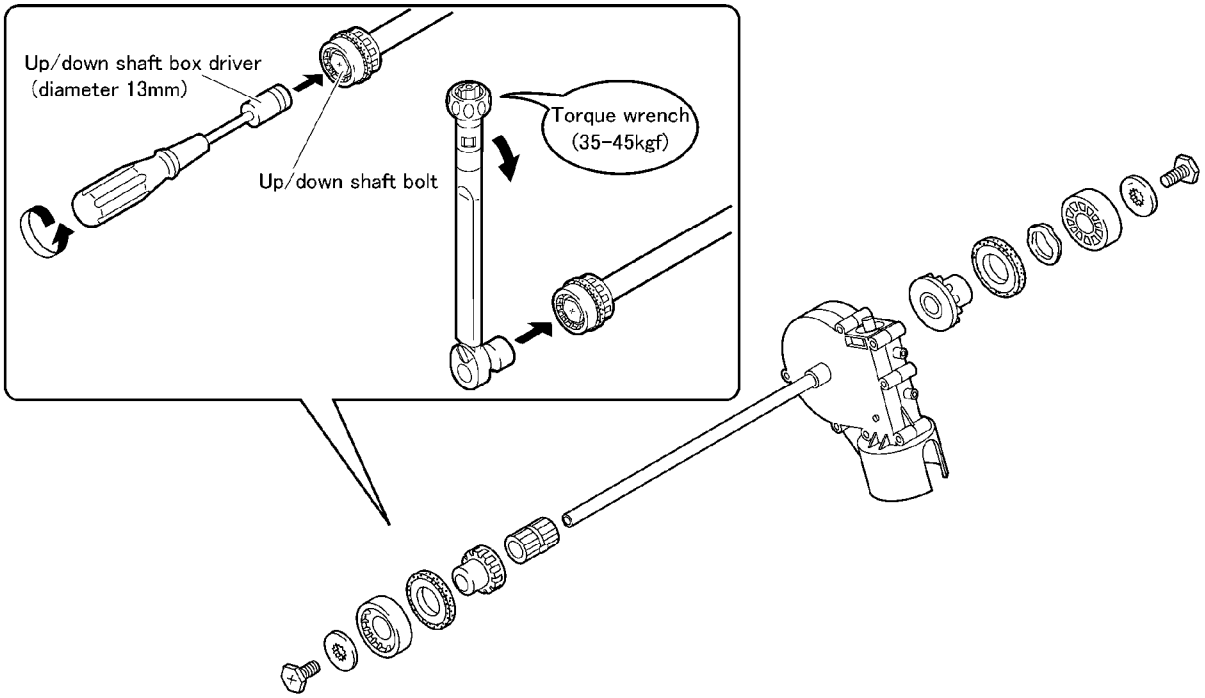
10.13.13. Removing the Up/down shaft(Up/down shaft bolt)

*Work with the Massage mechanism block unloaded.

1. Unscrew the Up/down shaft bolt with the 13mm-diameter box driver and a screwdriver.

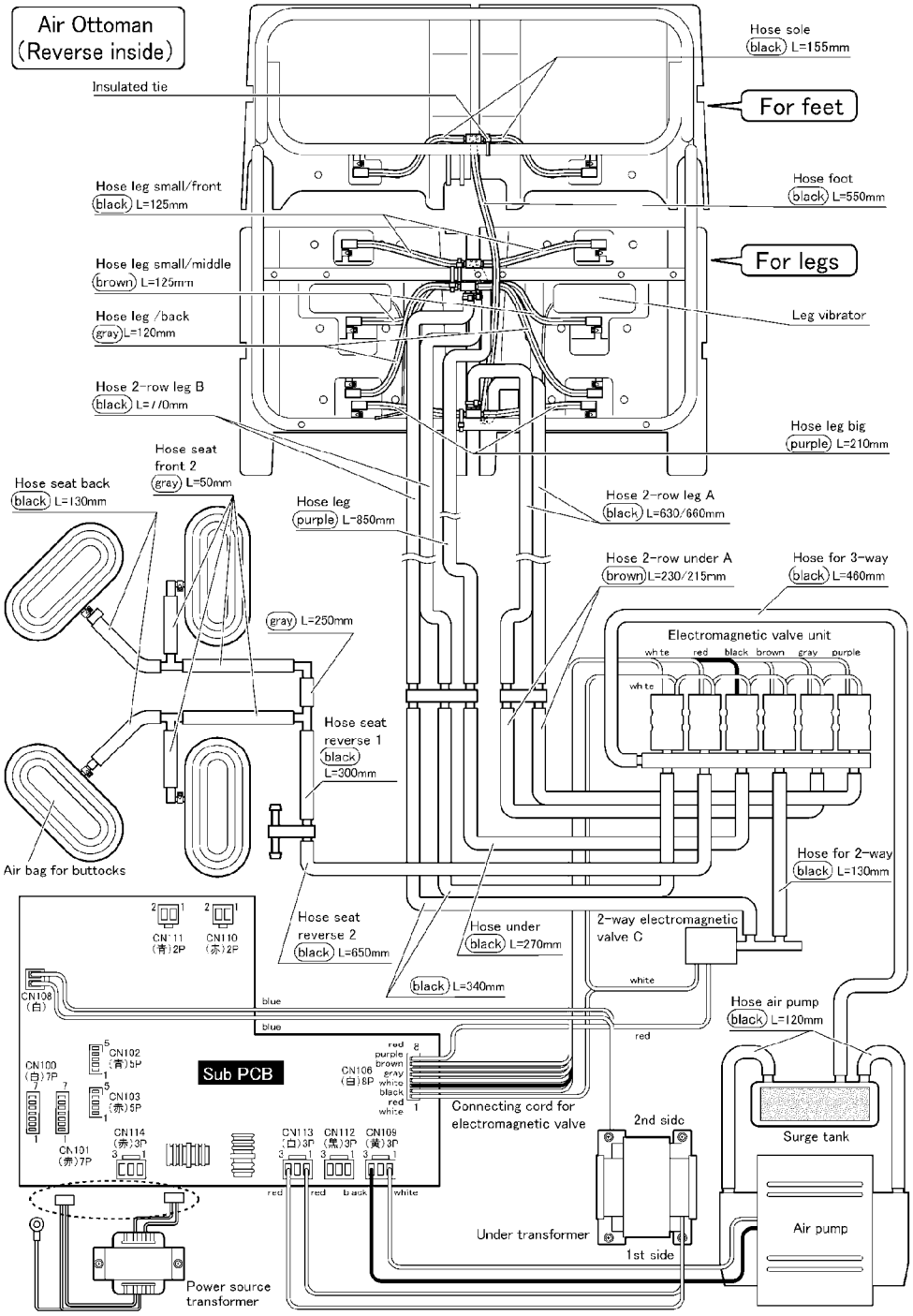
Caution when installing

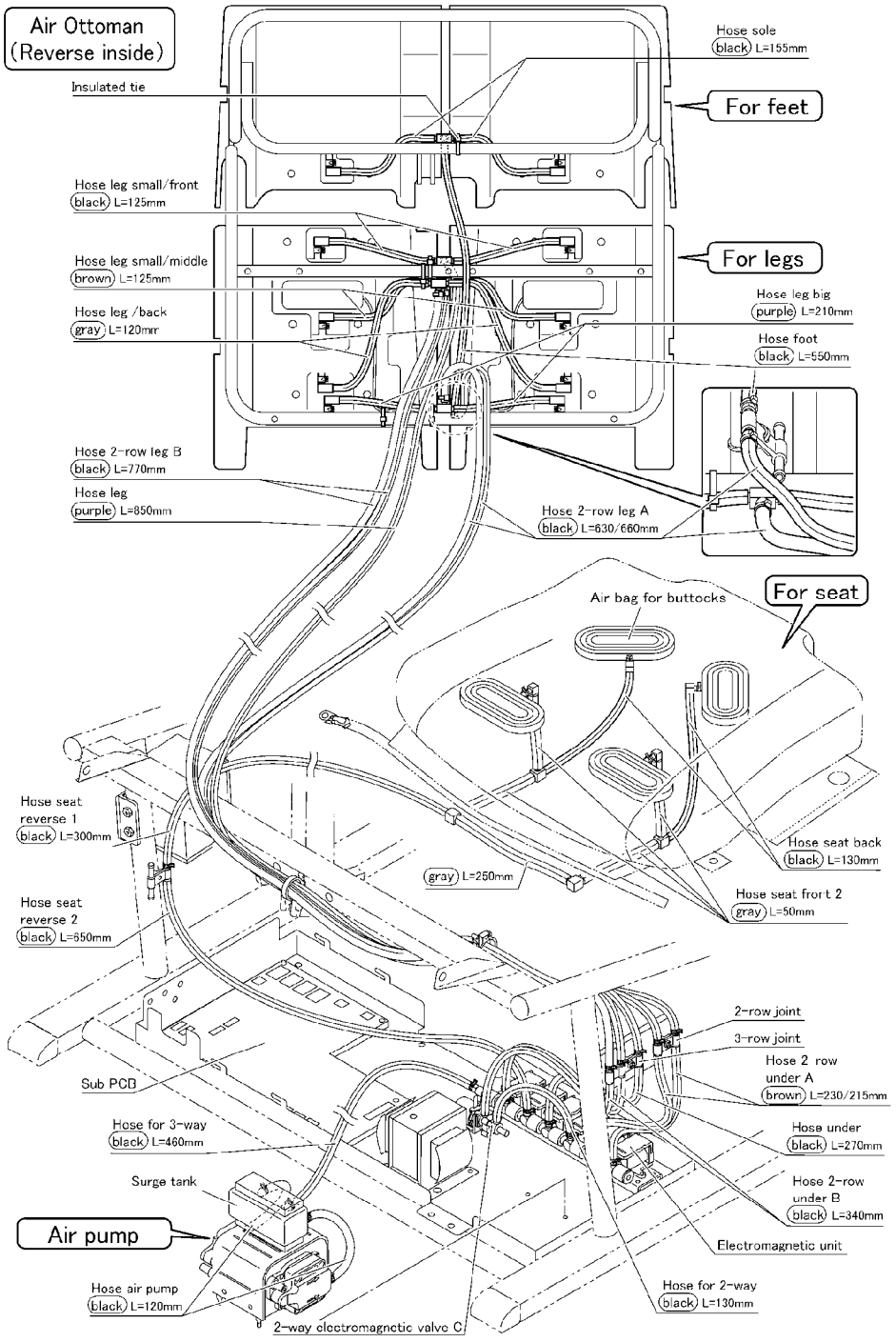
- Tightening the Up/down shaft bolt too tightly may break the bolt. Be sure to use the torque wrench and tighten the bolt with the tightening torque 35 - 45kgfcm(350 - 450Ncm).



11. ACTUAL WIRING DIAGRAM

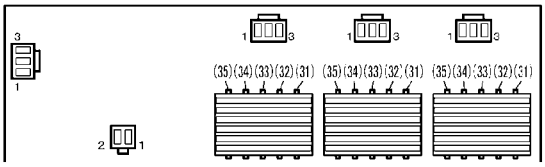
11.1. Air Ottoman


Air Ottoman
(Reverse inside)
Hose sole
black L=155mm
Insulated tie
For feet
Hose leg small/front
black L=125mm
Hose foot
black L=550mm
Hose leg small/middle
brown L=125mm
For legs
Hose leg /back
gray L=120mm
Leg vibrator
Hose 2-row leg B
black L=770mm
Hose leg big
purple L=210mm
Hose seat
front 2
gray L=50mm
Hose seat back
black L=130mm
Hose leg
purple L=850mm
Hose 2-row leg A
black L=630/660mm
Hose 2-row under A
brown L=230/215mm
Hose for 3-way
black L=460mm
gray L=250mm
Electromagnetic valve unit
white red black brown gray purple
white
Hose seat
reverse 1
black
L=300mm
Air bag for buttocks
Hose for 2-way
black L=130mm
CN11
(青)2P
CN10
(赤)2P
Hose seat
reverse 2
black L=650mm
Hose under
black L=270mm
2-way electromagnetic
valve C
black L=340mm
white
CN108
(白)
blue
blue
Hose air pump
black L=120mm
red
CN100
(白)7P
CN102
(青)5P
Sub PCB
CN106
(白)8P
red
purple
brown
gray
white
black
red
white
CN103
(赤)5P
Connecting cord for
electromagnetic valve
2nd side
Surge tank
CN114
(赤)3P
CN113
(白)3P
CN112
(黒)3P
CN109
(黄)3P
CN101
(赤)7P
red
red
black
white
Under transformer
1st side
Air pump
Power source
transformer


Air Ottoman
(Reverse inside)
Hose sole
black L=155mm
Insulated tie
For feet
Hose leg small/front
black L=125mm
Hose leg small/middle
brown L=125mm
For legs
Hose leg /back
gray L=120mm
Hose leg big
purple L=210mm
Hose foot
black L=550mm
Hose 2-row leg B
black L=770mm
Hose leg
purple L=850mm
Hose 2-row leg A
black L=630/660mm
For seat
Air bag for buttocks
Hose seat
reverse 1
black L=300mm
Hose seat back
black L=130mm
gray L=250mm
Hose seat front 2
gray L=50mm
Hose seat
reverse 2
black L=650mm
2-row joint
3-row joint
Hose 2 row
under A
brown L=230/215mm
Sub PCB
Hose for 3-way
black L=460mm
Hose under
black L=270mm
Surge tank
Hose 2-row
under B
black L=340mm
Air pump
Electromagnetic unit
Hose air pump
black L=120mm
Hose for 2-way
black L=130mm
2-way electromagnetic valve C

12. CHECKING

12.1. Controller, Massage mechanism block

Checking procedure	Checking method	Remedy
No motor operation		
Check the Power cord	Check that the Power cord is not disconnected.	NO → Replace the Power cord
OK		
Check the Fuses.	Check that the Fuses are not blown out.	NO → Replace the Fuses.
OK		
Check the Micro switch.	Check that the Micro switch connects properly.	NO → Replace the Micro switch.
OK		
Check the Connecting cord for power source A	Check that the Connecting cord for power source A is not disconnected between each lead wires.	NO → Replace the Connecting cord for power source A
OK		
Check the Sub PCB.	Check the voltage between the black connector 3P(CN112) (1) and (3) is about AC100V.	NO → Replace the Sub PCB.
OK		
Check the Power source transformer.	Check the transformer input and output voltage. ・Input voltage:There should be AC100V between the white connector 3P(CN113) (1) and (3) in the Sub PCB. ・Output voltage:There should be about AC12V between the white connector 2P(CN108)(1) and (2) in the Power source transformer.	NO → Replace the Power transformer.
OK		
Check the Connecting cord for power source.	Check that the Connecting cord for power source is not disconnected between each lead wires. There should be AC100V between the red connector 3P(CN106) (1) and (3). Check the Connecting cord for power source by bending.	NO → Replace the Connecting cord for power source.
OK		
Check the Motors.	Check the resistance of the motors. The resistance between the following should be about 9.5Ω. ・Up/down motor connector white 3P(CN102) ・Intensity motor connector yellow 3P(CN105) (1)–(2), (1)–(3), (2)–(3) The resistance between the following should be about 30–100Ω. ・Tapping motor connector white 2P(CN209) (1)–(2).	NO → Replace the Motors.
OK		
Check the Main PCB.	Check the short circuit of IPM for motor operation. It is OK if it is 1MΩ or more between the following: (31)–(32), (31)–(33), (31)–(34), (35)–(32), (35)–(33), (35)–(34). 	NO → Replace the Main PCB.

Checking procedure | Checking method | Remedy

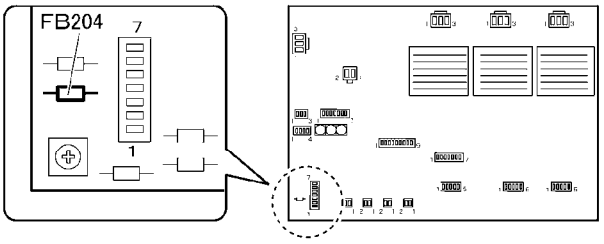
Check with the Soft tapping, widest, strongest, and Massage mechanism block lowest. Use the analog tester.

Check the Sensor plates.
- Intensity sensor
- Up/down sensor
- Width sensor
- Body pressure sensor
- Tapping sensor

Sensor	Sensor terminal: Pin No.	Sensor terminal: Color of Lead wires	Sensor terminal: G	Output voltage (DC)
・Intensity sensor(CN205)	(5)	Y	FB204	Check if there is the output voltage High-Low (5V -0V) by the tester.
・Up/down sensor(CN206)	(4)・(6)・(7)・(8)	O・G・Bl・V		
・Width sensor(CN207)	(4)・(5)・(6)・(7)	O・Y・G・Bl		
・Body pressure sensor (CN203)	(3)	R	FB204	Check that there is about DC1.5V with the Massage mechanism block unloaded.
・Tapping sensor (CN202)	(1)	B	FB204	Check that there is about DC12V between (1)-G, and DC5V between (3)-G.
	(3)	R		

NO

Color code chart	
B	Black
Br	Brown
R	Red
O	Orange
Y	Yellow
G	Green
Bl	Blue
W	White
Gr	Gray
V	Violet
Bg	Beige



Replace sensors if there is not output voltage.

Checking procedure | Checking method | Remedy

Massage mechanism block does not move.

Turn on the Power source switch before the following checks.

Check the test mode of the Massage mechanism block.

Check the following volatge of the Massage mechanism block:
- There should be about AC100V between the Connector (CN106) (1) and (3).
- There should be about DC12V between the Connector (CN204) red(7) and black(4).

NO → Replace the Massage mechanism block.

OK

Check the the following voltage of the Sub PCB:
- There should be about AC100V between the Connector (CN112) (1) and (3).
- There should be about AC12V between the Power source transformer connector (CN108) (1) and (2).

NO → Replace the Connecting cord for Power source.

OK

Check the Fuses.

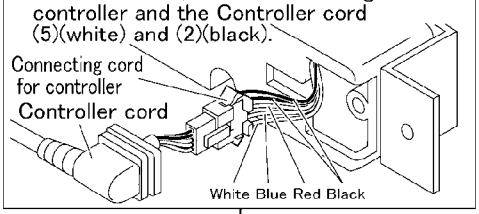
Check that the Fuses are not blown out.

NO → Replace the Fuses.

OK

Check the test mode of the Controller.

Check the voltage of the Controller.
- There should be about DC12V between the Connectors(5P) of the Connecting cord for controller and the Controller cord (5)(white) and (2)(black).

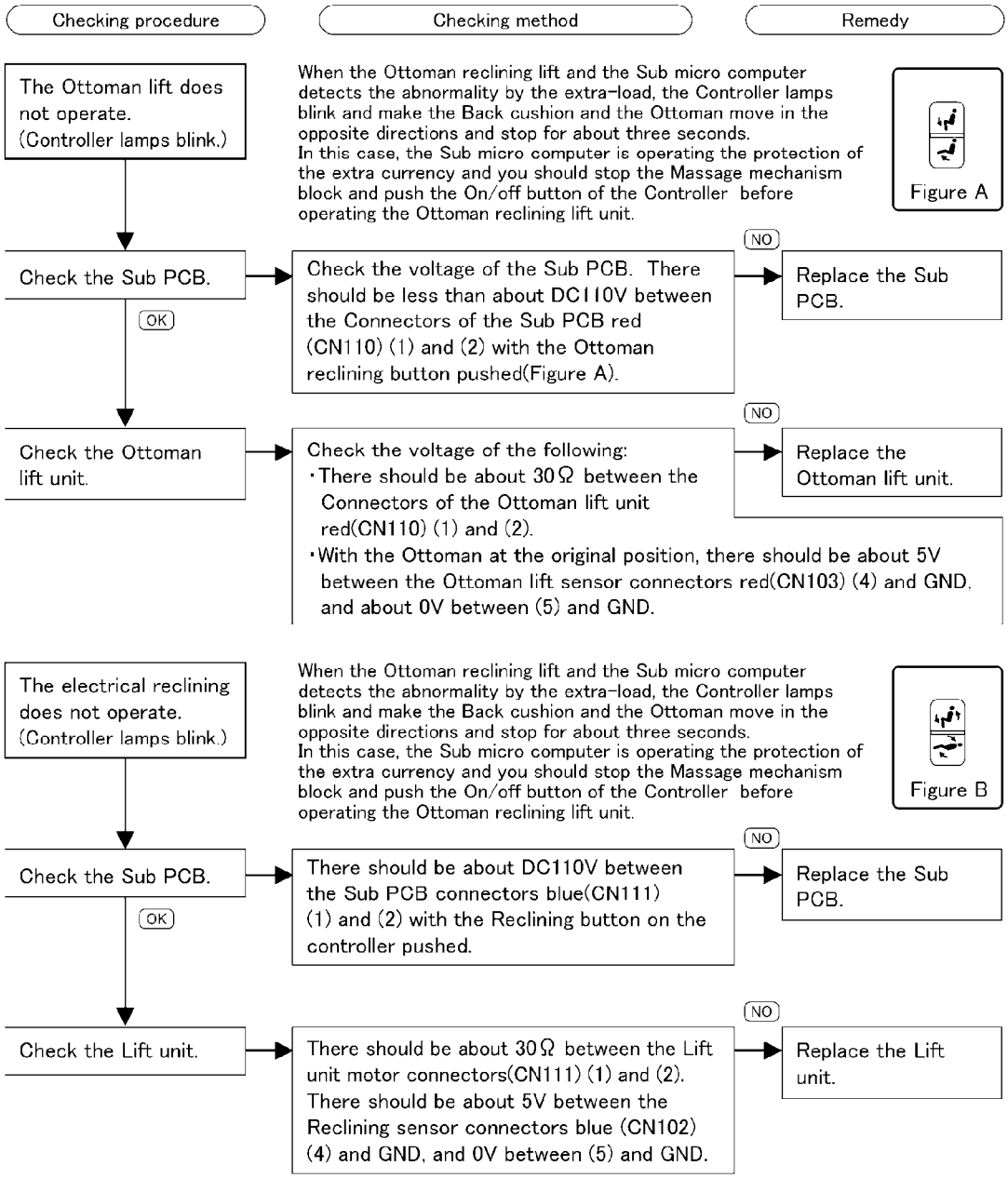


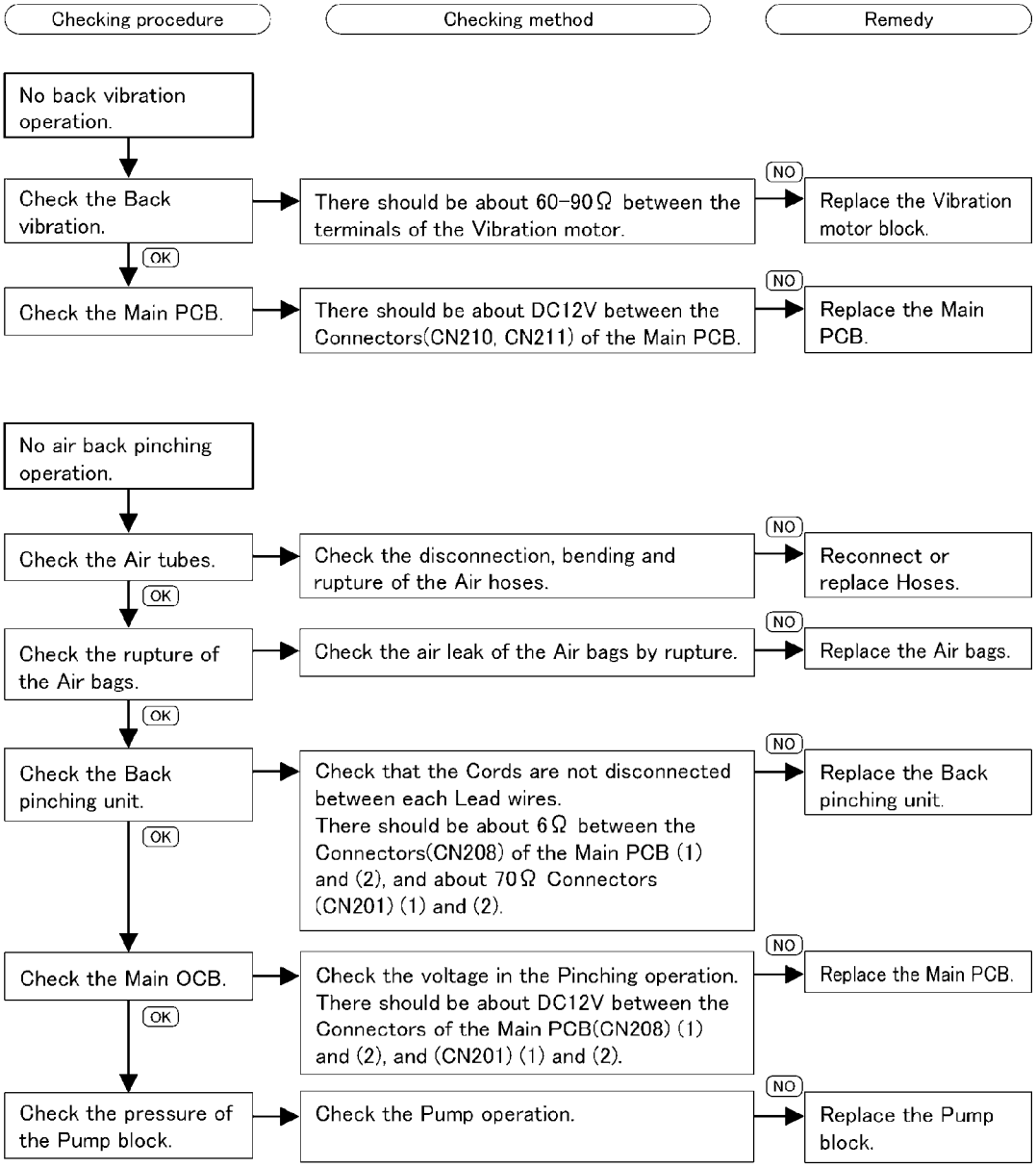
NO → Replace Sub PCB.

OK

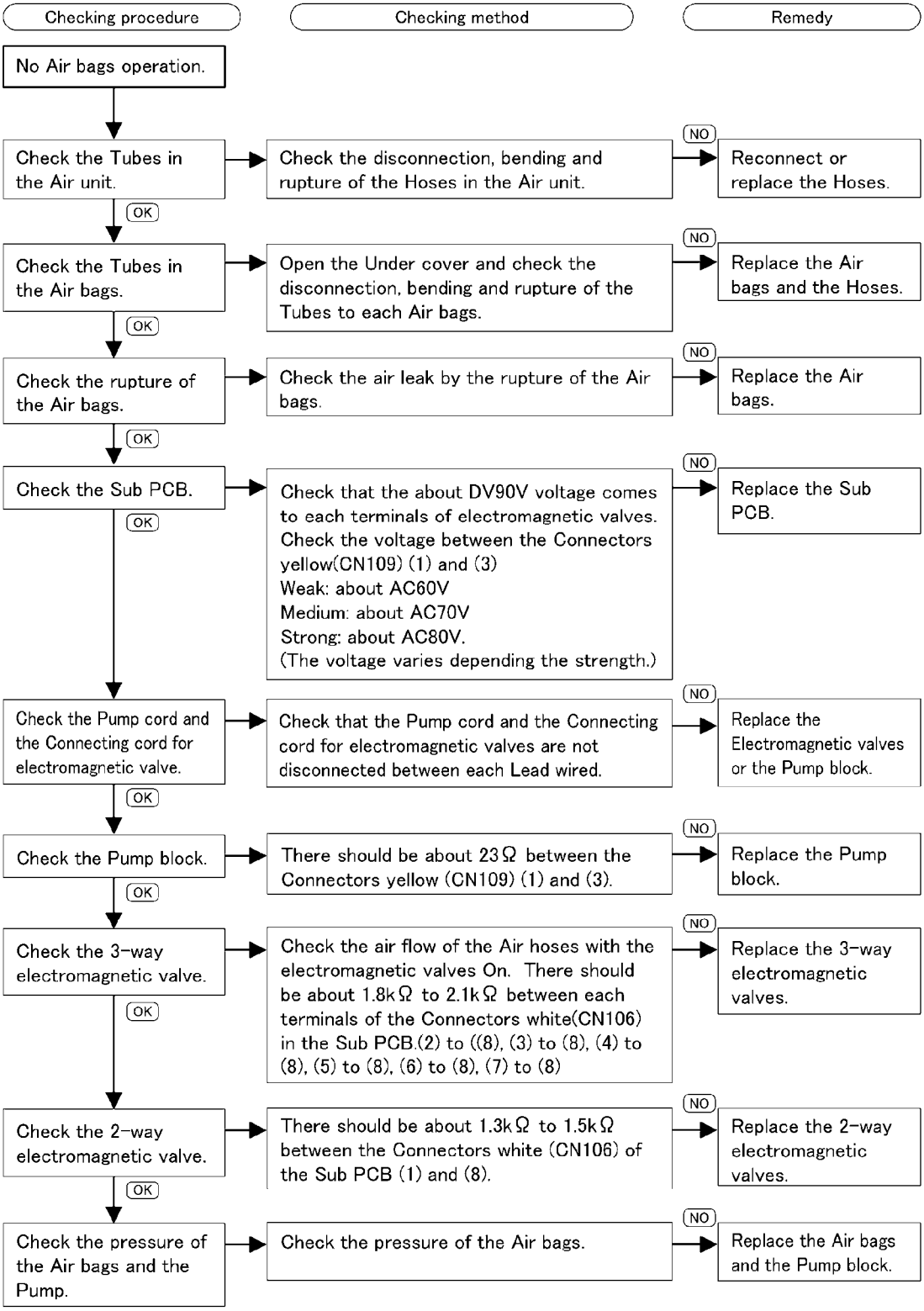
Check the voltage of the Sub PCB.
- There should be about DC12V between the Connector(CN101) white (7) and black (4).

NO → Replace the Power source box and Connecting cord for sub PCB.


Checking procedure
Checking method
Remedy
The Ottoman lift does not operate. (Controller lamps blink.)
When the Ottoman reclining lift and the Sub micro computer detects the abnormality by the extra-load, the Controller lamps blink and make the Back cushion and the Ottoman move in the opposite directions and stop for about three seconds. In this case, the Sub micro computer is operating the protection of the extra currency and you should stop the Massage mechanism block and push the On/off button of the Controller before operating the Ottoman reclining lift unit.
Figure A
Check the Sub PCB.
NO
Check the voltage of the Sub PCB. There should be less than about DC110V between the Connectors of the Sub PCB red (CN110) (1) and (2) with the Ottoman reclining button pushed(Figure A).
Replace the Sub PCB.
OK
Check the Ottoman lift unit.
NO
Check the voltage of the following:
・There should be about 30Ω between the Connectors of the Ottoman lift unit red(CN110) (1) and (2).
・With the Ottoman at the original position, there should be about 5V between the Ottoman lift sensor connectors red(CN103) (4) and GND, and about 0V between (5) and GND.
Replace the Ottoman lift unit.
The electrical reclining does not operate. (Controller lamps blink.)
When the Ottoman reclining lift and the Sub micro computer detects the abnormality by the extra-load, the Controller lamps blink and make the Back cushion and the Ottoman move in the opposite directions and stop for about three seconds. In this case, the Sub micro computer is operating the protection of the extra currency and you should stop the Massage mechanism block and push the On/off button of the Controller before operating the Ottoman reclining lift unit.
Figure B
Check the Sub PCB.
NO
There should be about DC110V between the Sub PCB connectors blue(CN111) (1) and (2) with the Reclining button on the controller pushed.
Replace the Sub PCB.
OK
Check the Lift unit.
NO
There should be about 30Ω between the Lift unit motor connectors(CN111) (1) and (2). There should be about 5V between the Reclining sensor connectors blue (CN102) (4) and GND, and 0V between (5) and GND.
Replace the Lift unit.


Checking procedure
Checking method
Remedy
No back vibration operation.
Check the Back vibration.
There should be about 60–90Ω between the terminals of the Vibration motor.
NO
Replace the Vibration motor block.
OK
Check the Main PCB.
There should be about DC12V between the Connectors(CN210, CN211) of the Main PCB.
NO
Replace the Main PCB.
No air back pinching operation.
Check the Air tubes.
Check the disconnection, bending and rupture of the Air hoses.
NO
Reconnect or replace Hoses.
OK
Check the rupture of the Air bags.
Check the air leak of the Air bags by rupture.
NO
Replace the Air bags.
OK
Check the Back pinching unit.
Check that the Cords are not disconnected between each Lead wires.
There should be about 6Ω between the Connectors(CN208) of the Main PCB (1) and (2), and about 70Ω Connectors (CN201) (1) and (2).
NO
Replace the Back pinching unit.
OK
Check the Main OCB.
Check the voltage in the Pinching operation.
There should be about DC12V between the Connectors of the Main PCB(CN208) (1) and (2), and (CN201) (1) and (2).
NO
Replace the Main PCB.
OK
Check the pressure of the Pump block.
Check the Pump operation.
NO
Replace the Pump block.

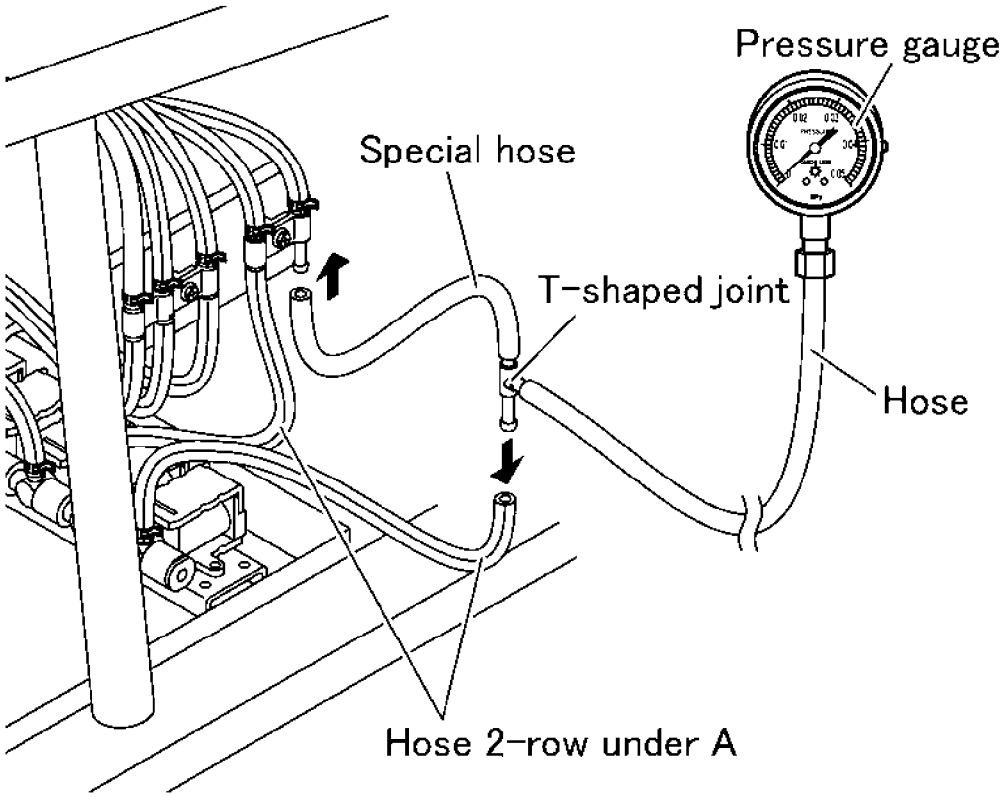
12.2. Air bags


Checking procedure
Checking method
Remedy
No Air bags operation.
Check the Tubes in the Air unit.
Check the disconnection, bending and rupture of the Hoses in the Air unit.
NO
Reconnect or replace the Hoses.
OK
Check the Tubes in the Air bags.
Open the Under cover and check the disconnection, bending and rupture of the Tubes to each Air bags.
NO
Replace the Air bags and the Hoses.
OK
Check the rupture of the Air bags.
Check the air leak by the rupture of the Air bags.
NO
Replace the Air bags.
OK
Check the Sub PCB.
Check that the about DV90V voltage comes to each terminals of electromagnetic valves.
Check the voltage between the Connectors yellow(CN109) (1) and (3)
Weak: about AC60V
Medium: about AC70V
Strong: about AC80V.
(The voltage varies depending the strength.)
NO
Replace the Sub PCB.
OK
Check the Pump cord and the Connecting cord for electromagnetic valve.
Check that the Pump cord and the Connecting cord for electromagnetic valves are not disconnected between each Lead wired.
NO
Replace the Electromagnetic valves or the Pump block.
OK
Check the Pump block.
There should be about 23Ω between the Connectors yellow (CN109) (1) and (3).
NO
Replace the Pump block.
OK
Check the 3-way electromagnetic valve.
Check the air flow of the Air hoses with the electromagnetic valves On. There should be about 1.8kΩ to 2.1kΩ between each terminals of the Connectors white(CN106) in the Sub PCB.(2) to ((8), (3) to (8), (4) to (8), (5) to (8), (6) to (8), (7) to (8)
NO
Replace the 3-way electromagnetic valves.
OK
Check the 2-way electromagnetic valve.
There should be about 1.3kΩ to 1.5kΩ between the Connectors white (CN106) of the Sub PCB (1) and (8).
NO
Replace the 2-way electromagnetic valves.
OK
Check the pressure of the Air bags and the Pump.
Check the pressure of the Air bags.
NO
Replace the Air bags and the Pump block.

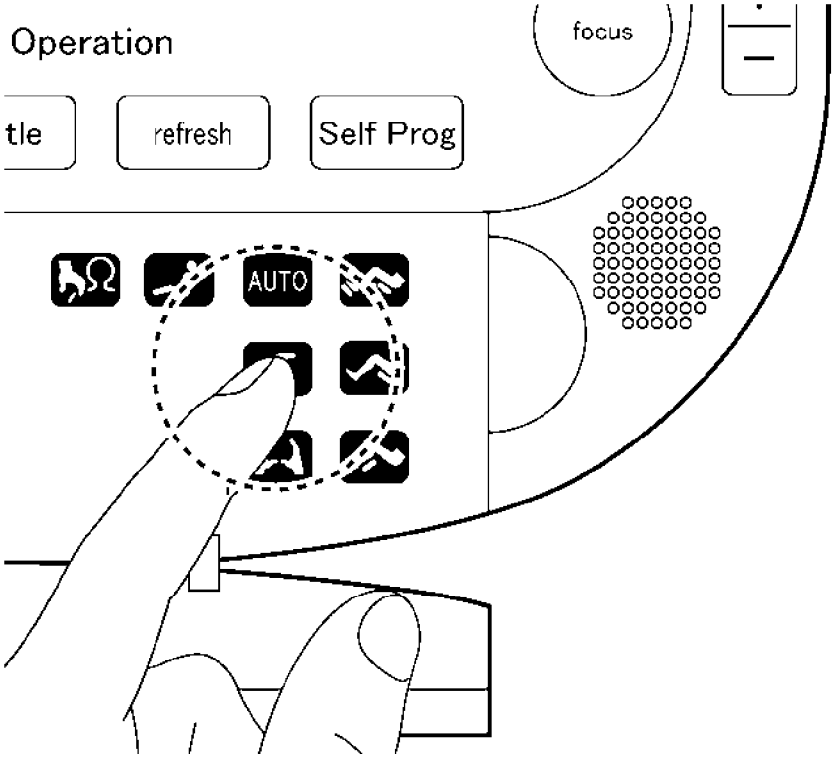
12.3. Checking the pressure of the Air bags

1. Follow the procedure 10.4 Removing the Under cover.

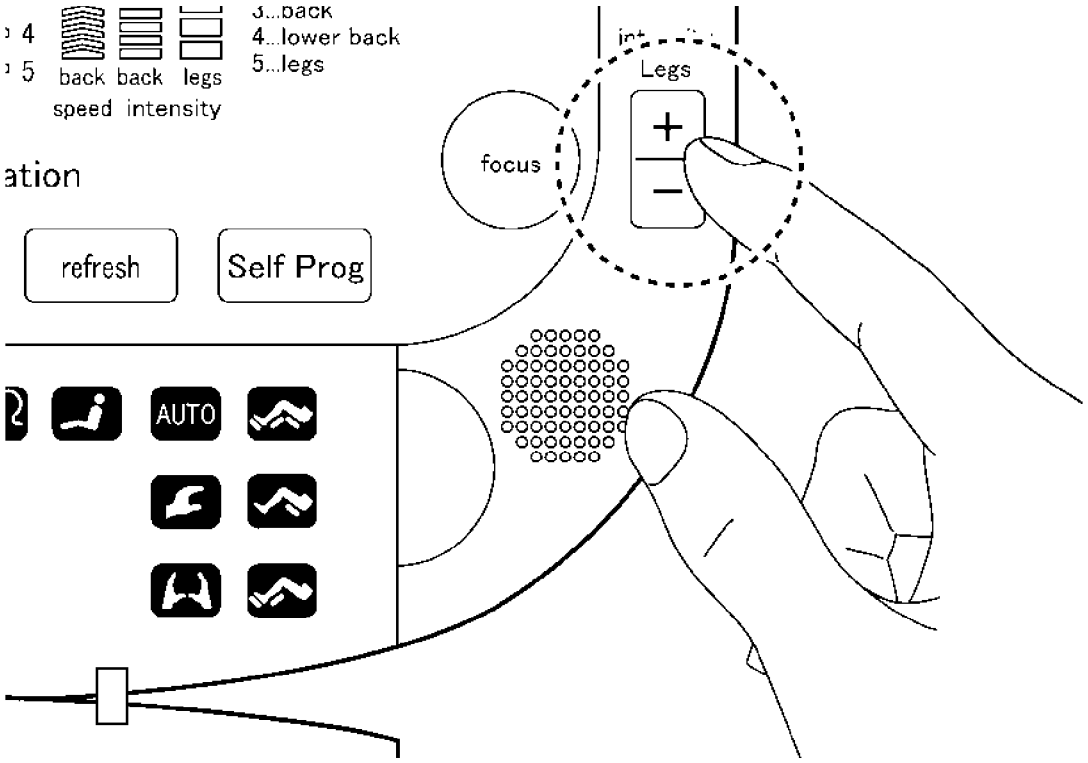
2. Connect the Air pressure gauge and the Special hose to the Hose 2-row leg A.



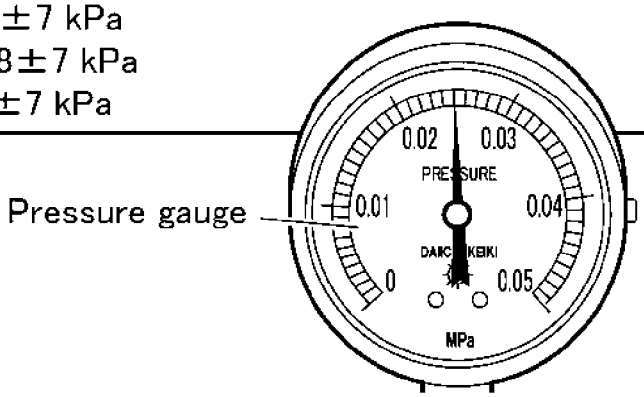
3. Turn on the On/off switch of the Controller and push the Squeeze button.



4. Check the three pressures of the Intensity legs button on the Controller.
If the pressure rates are within certain ranges, the Air bag and the Pump unit are OK. If the rates are low, check the pressure of the Pump unit. If the Pump unit is OK, there are something wrong with the Air bag or the Electromagnetic valves.
Caution
Be careful not to bend hoses while checking.



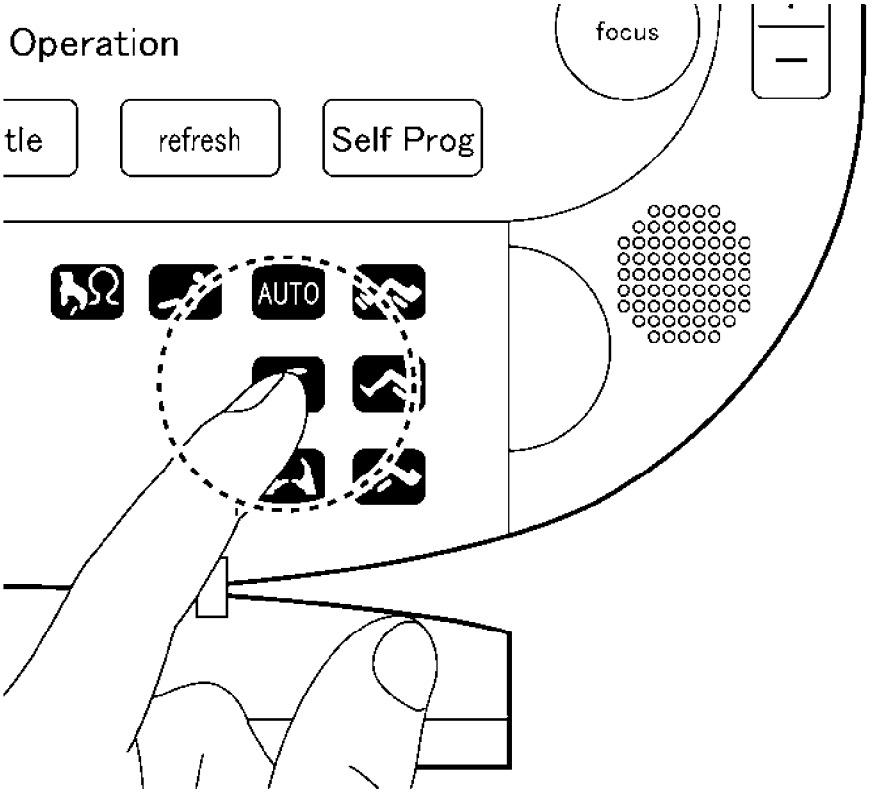
Squeeze, No load
Feet Sole Air bags 50/60Hz each
Push the Intensity legs button of the Controller and check the pressures.
Strong 25±7 kPa
Medium 18±7 kPa
Weak 11±7 kPa



12.4. Checking Electromagnetic valves

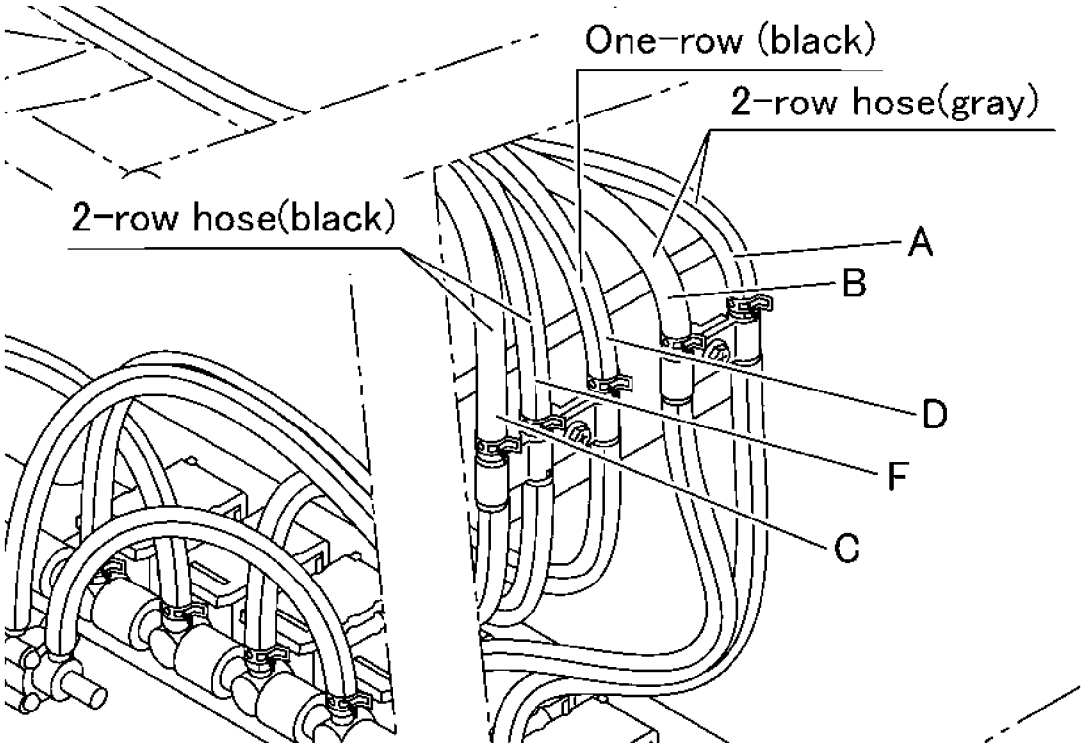
Follow the procedure 10.4 Removing the Under cover and 10.4 Removing the Under box, Under box cover.

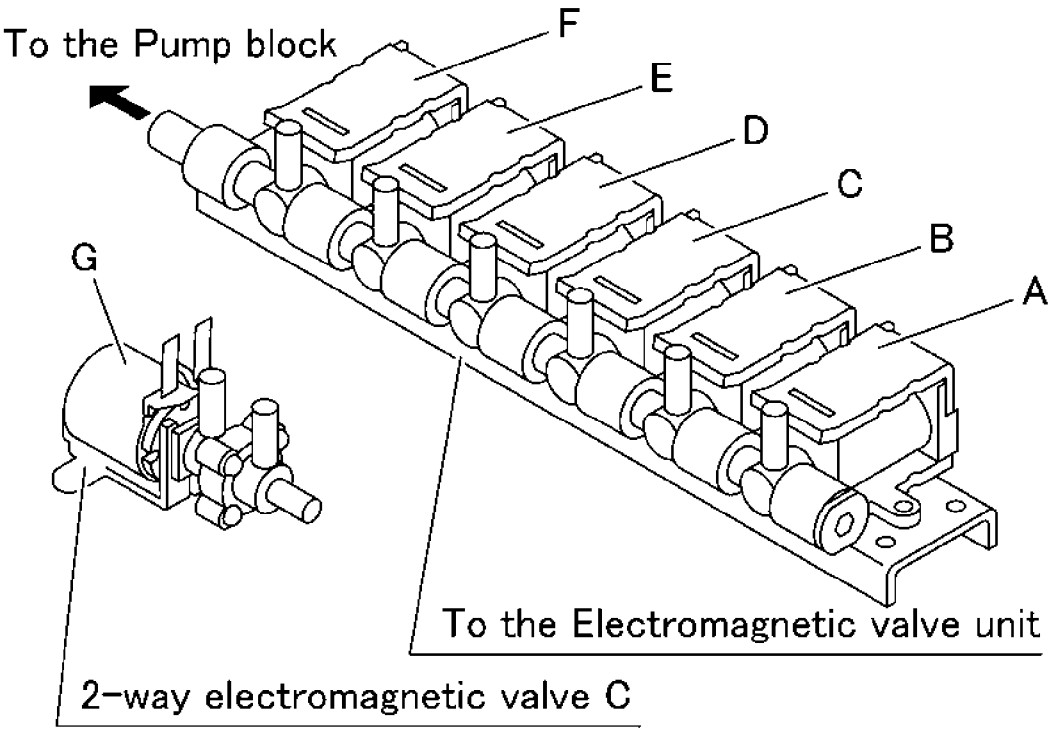
1. Turn on the On/off switch of the Controller and push the Squeeze button.

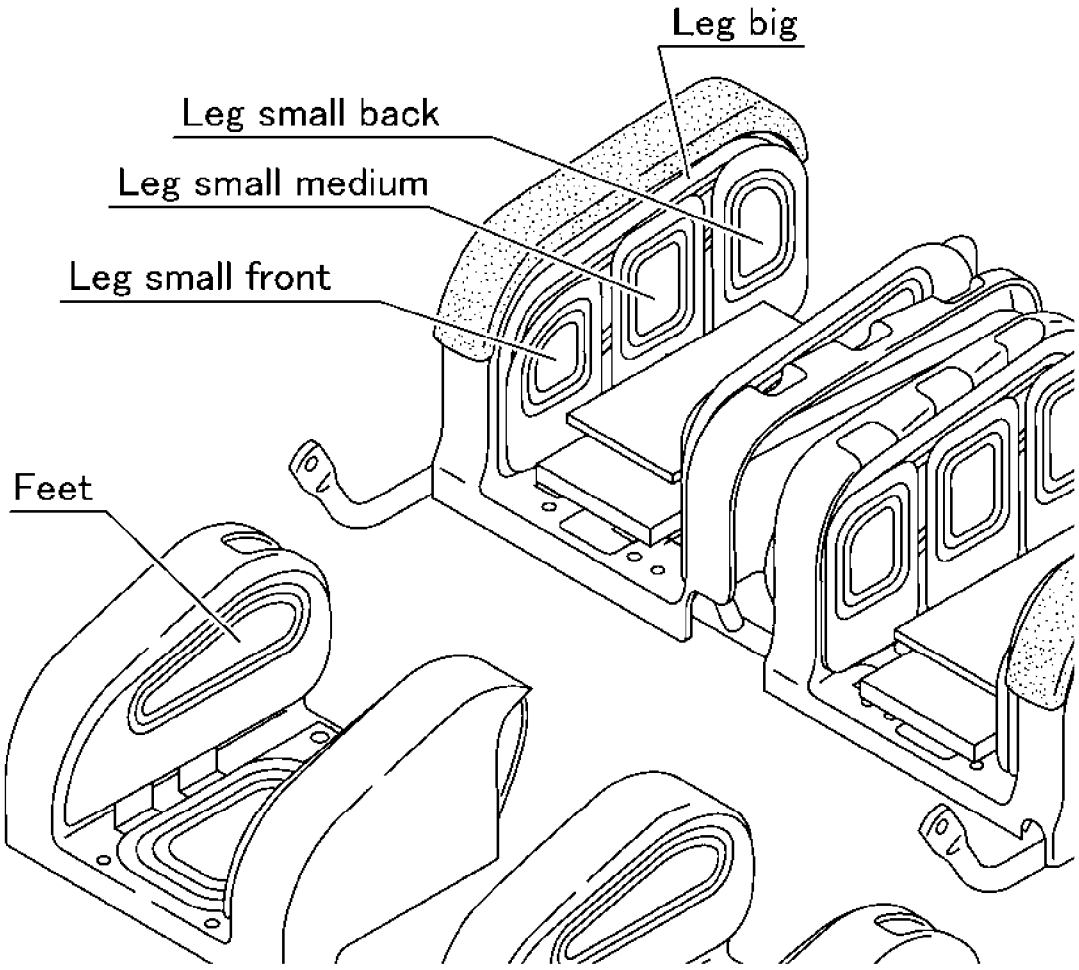


2. Disconnect the Hoses with the air flow and the operating voltages of the Electromagnetic valves.
There should be about DC90V between the Connectors(CN106) of the Sub OCB.

Lead wires —Pin No.—GND	Air bag	Electromagnetic valve
Red—(1)—GND	2-way electromagnetic valve	G
Violet—(2)—GND	Feet	A
Brown—(3)—GND	Leg big	C
Gray—(4)—GND	Leg small back	B
White—(5)—GND	Leg small medium	F
Black—(6)—GND	Leg small front	D
Red—(7)—GND	Seat	E




To the Pump block
F
E
D
C
B
A
G
To the Electromagnetic valve unit
2-way electromagnetic valve C

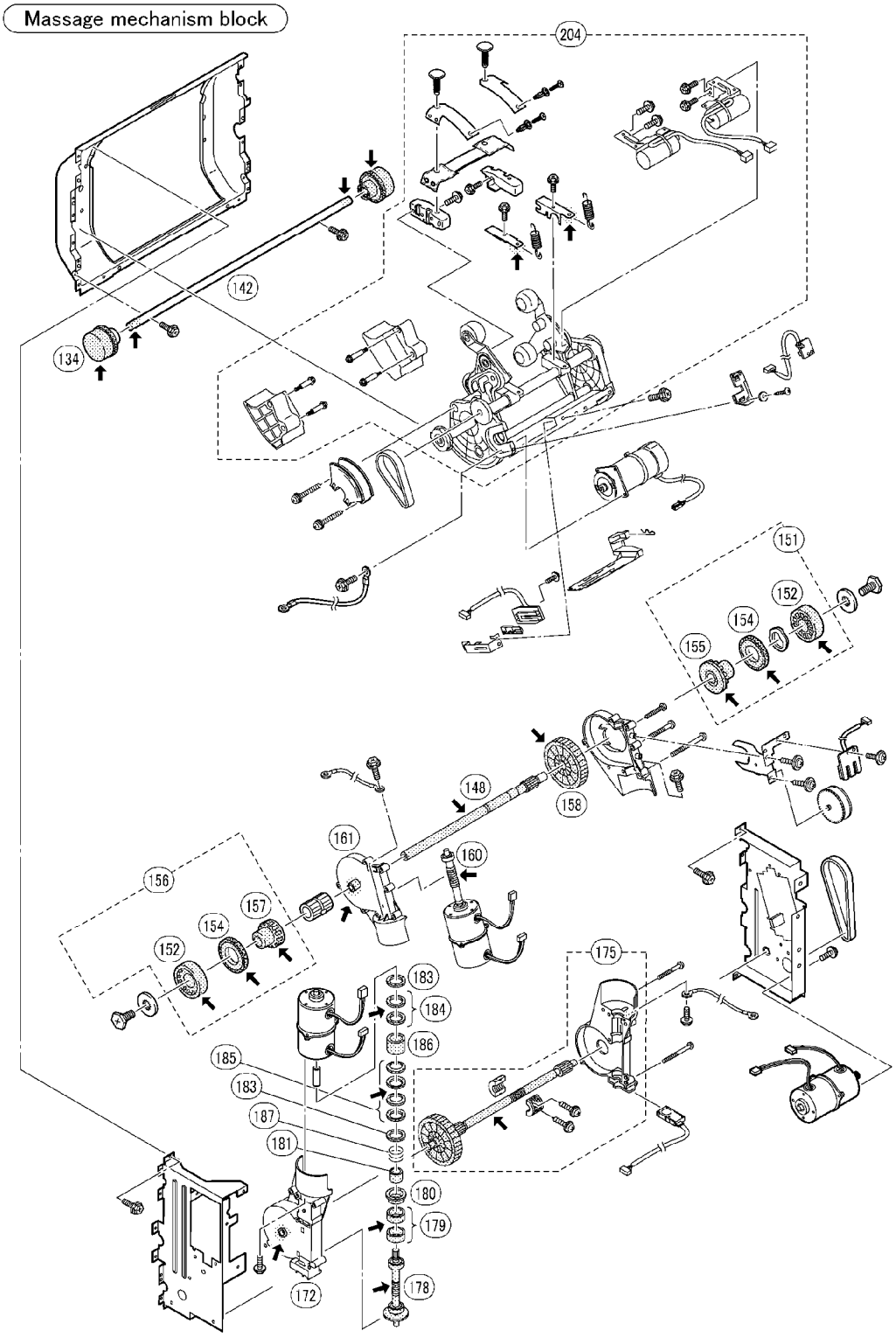


3. There should be the following resistance between the terminals of each Electromagnetic valves:

- **3-way electromagnetic valves: about 1.8- 2.1k Ω**
- **2-way electromagnetic valves: about 1.3-1.5k Ω**

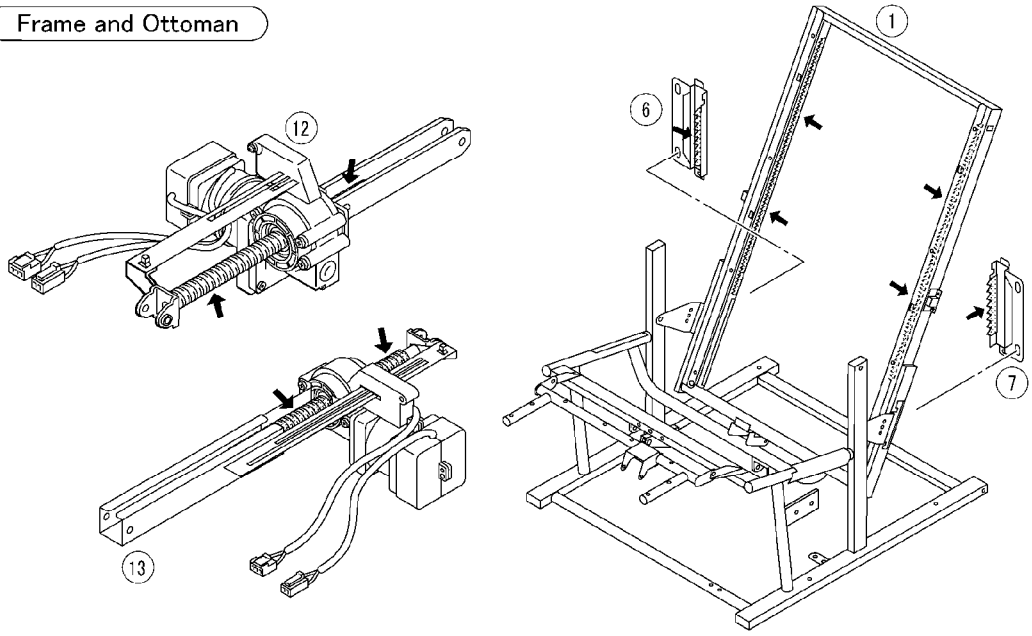
13. GREASE

Grease up the parts (⁘⁘⁘⁘) when repairing.



Grease up the parts ( ) when repairing.

Frame and Ottoman



No. in the exploded view	Parts names	Grease	Grease No.
13	Ottoman lift unit	Alvania RA (brown)	WEP001T8907(70g) WEP002T8907(300g)
142	Shaft		
158	Up/down worm wheel		
160	Up/down motor worm shaft		
204	Intensity gear		
1 6 7	Rear frame, Rail piece set	Molycoat (white)	WEP001W8927(70g) WEP002W8927(300g)
134	Guide roller rubber ring		
152 154 155 157	Guide roller B, Rubber ring, Pinion B, Pinion C		
178 179	Intensity worm shaft, Bushing	E paste (yellow)	WEP001Y8947(70g) WEP002Y8947(300g)
180 181	Spring slide plate, Stopper ring		
187	Massage sensor spring		
12	Reclining lift unit		
175	Intensity worm wheel		
204	Arm slide shaft (two)		
204	Width screw		
204	Tapping shaft	Molycoat/E paste	WEP001Y8967(70g) WEP002Y8967(300g)
172	Intensity gear box A shaft holder		

14. EXPLODED VIEW

15. REPLACEMENT PARTS LIST

NOTES:

Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
1	WEP3200L0087	BACK FRAME			1
2	WEP3200L0887	RESIN BUSHING			10
3	WEP3203L0048	REAR COVER FIXING PLATE			1
4	WEP2000L9567	SCREW(CUP.K4-10)			5
5	WEP2005L0687	CORD WIRE			1
6	WEP3200L0767	RAIL PIECE RIGHT			1
7	EP3200L0777	RAIL PIECE LEFT			1
8	WEP573L6627	SCREW(CUP.S.K4-6)			6
9	WEP3200L3027	PROTECTION COVER RIGHT			1
10	WEP3200L3037	PROTECTION COVER LEFT			1
11	WEP2110L0907	HINGE PIN A2			2
12	WEP3203L1768	RECLINING LIFT UNIT			1
13	WEP3203L1778	OTTOMAN LIFT UNIT			1
14	WEP2100L0417	OTTOMAN LIFT PIN LONG			4
15	WEP3200K0097	UNDER PIPE			1
16	WEP3200L0397	SEAT PROTECTION SHEET			1
17	WEP596K0457	RIVET			1
18	WEP3200K3907	CASTORS			2
19	WEP2005K6537	SCREW(M5-16)			2
20	WEP3200K3377	SEAT PLATE			2
21	WEP596L9567	SCREW(CUP.S.K4-10)			6
22	WEP780L0447	COVER CLIP			1
23	WEP3200L0277	HOSE CLIP 1J98			1
24	WEP3200K1587	PARALLEL LINK			1
25	WEP3200L1157	LIFT BUSHING			4
26	WEP3200L0937	HINGE PIN MINI D			2
27	WEP596N0357	SNAP PIN			12
28	WEP3200K1567	LEG SLIDE LEVER			1
29	WEP3200K1627	WIRE FIXING PLATE			1
30	WEP2000L0927	HINGE PIN B			2
31	WEP757L6987	POLYETHYLENE WASHER			2
32	WEP2000L6987	WASHER			4
33	WEP2100L6937	U NUT			2
34	WEP3200L0367	SLIDE BASE			1
35	WEP3200L9587	SCREW(S.T5-28)			4
36	WEP2200L0147	2-ROW JOINT			3
37	WEP2110L0147	3-ROW JOINT			1
38	WEP2000L9577	SCREW(S.K4-16)			2
39	WEP3203K3858	AIR OTTOMAN COVER			1
40	WEP3203L4008	LEG AIR BAG BLOCK			1
41	WEP3200L0467	ANCHOR CLIP			4
42	WEP3200L0867	FEET SOLE AIR BAG			2
43	WEP3203K3868	FEET COVER RIGHT			1
44	WEP3203K3878	FEET COVER LEFT			1
45	WEP596L9567	SCREW(S.K.4-10)			10
46	WEP3200L0307	FEET PIPE			1
47	WEP3200L0617	URETHANE RUBBER			1
48	WEP3200L0917	HINGE PIN MINI			2
49	WEP3200L0887	RESIN BUSHING			2
50	WEP596N0357	SNAP PIN			2

Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
51	WEP3200L0177	SPRING			1
52	WEP3200L4487	LEG SLIDE LEVER WIRE			1
53	WEP3200L1387	SLIDER PLATE			1
54	WEP3200L9607	SCREW(CUP.S.K4-18)			6
55	WEP3200L1407	LINEAR SLIDE			2
56	WEP3200L1437	SLIDE STOPPER			2
57	WEP3200L1467	SLIDE GUIDE			2
58	WEP3200L1497	SLIDE HOLDER			2
59	WEP3200L1487	POSITION PLATE			1
60	WEP2000L9567	SCREW(CUP.S.K4-10)			8
61	WEP2800L0477	HOSE CLAMP			6
62	WEP3200L0897	BUTTOCKS AIR BAG			4
63	WEP3200L0737	HOSE SEAT SET			1
64	WEP3200L0667	HOSE FEET			1
65	WEP3200L0677	HOSE SOLE			1
66	WEP3200L0687	HOSE 2-ROW LEG A			1
67	WEP3200L0697	HOSE 2-ROW LEG B			1
68	WEP3200L0707	HOSE LEG			1
69	WEP005W8517	INSULATED TIE(MEDIUM)			4
70	WEPT211K6357	SCREW(S.K3-45)			1
71	WEP2110H3127	BUSHING COVER			1
72	WEP3203K2008	POWER SOURCE SWITCH BLOCK			1
73	WEP3203K2058	POWER CORD			1
74	WEP3203K2068	CONNECTING CORD FOR POWER SOURCE B			1
75	WEP3200L0077	POWER SOURCE BOX LID			1
76	WEP3203K2078	CONNECTING CORD FOR CONTROLLER			1
77	WEP2000L0717	ROD HOLDER C			1
78	WEP3203K3108	UNDER BOX TOP/RIGHT			1
79	WEP3203K3118	UNDER BOX TOP/LEFT			1
80	WEP3200L3757	EDGE GUARD			1
81	WEP596L9567	SCREW(CUP.S.K4-10)			10
82	WEP3200L0757	HOSE 2-ROW UNDER A			1
83	WEP3200L0817	HOSE 2-ROW UNDER B			1
84	WEP3200L0787	HOSE UNDER			1
85	EP3200L0797	HOSE UNDER 2			1
86	WEP3200L0807	HOSE PUMP			2
87	WEP3203L4068	ELECTROMAGNETIC VALVE UNIT			1
88	WEP3200L2437	2-WAY ELECTROMAGNETIC VALVE			1
89	WEP3203L4478	PUMP UNIT			1
90	WEP3203L2108	SUB PCB			1
91	WEP3200L2257	PCB HEAT RESISTANCE SHEET 2			1
92	WEP2000L6017	SCREW(CUP.S.M3-5)			4
93	WEP2110L0517	PCB SPACER			5
94	WEP2000L6967	BUSHING FOR PCB			3
95	WEP3203L2238	POWER SOURCE TRANSFORMER			1
96	WEP3203K0008	TRANSFORMER INSTALLATION BLOCK			1
97	WEP573L6627	SCREW(CUP.S.K4-6)			6
98	WEP3200L2907	CONNECTING CORD FOR ELECTROMAGNETIC VALVE			1
99	WEP3200L3517	UNDER BOX BOTTOM			1

Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
100	WEP3200L0657	HOSE 2-WAY			1
101	WEP3200L0647	HOSE 3-WAY			1
102	WEP2800L0477	HOSE CLAMP			10
103	WEP3200L0287	SURGE TANK			1
104	WEP3200L2277	HEAT RESISTANCE SHEET 1			1
105	WEP3200L2287	HEAT RESISTANCE SHEET 3			1
106	WEP005W8537	INSULATED TIE MEDIUM T30R/SF			1
107	WEP005W8517	INSULATED TIE T30R			1
108	WEP3203K4458	CONTROLLER BLOCK			1
109	WEP3203K0018	CONTROLLER STAND			1
110	WEP3200H7937	INSTALLATION SCREW SET			1
111	WEP3203K3128	SIDE COVER RIGHT			1
112	WEP3203K3138	SIDE COVER LEFT			1
113	WEP2110L0427	SCREWRIVET 21M2			8
114	WEP3203K0568	ARM PARTS RIGHT			1
115	WEP3203K0578	ARM PARTS LEFT			1
116	WEP2110K9697	SCREW(S.T4-10)			6
117	WEP3203K3708	ARMREST RIGHT			1
118	WEP3203K3718	ARMREST LEFT			1
119	WEP3203K3618	HEADREST			1
120	WEP3203K3638	BACK CUSHION			1
121	WEP3203K3148	MASSAGE WHEEL COVER			1
122	WEP3200L0857	CENTER HOOK			1
123	WEP757L9687	SCREW(T4-16)			8
124	WEP3200K3177	REAR COVER TOP			1
125	WEP2200L9697	SCREW(P.T4-16)			2
126	WEP3203K3158	REAR COVER BOTTOM			1
127	WEP3203K3648	SEAT			1
128	WEP3203K3168	UNDER COVER RIGHT			1
129	WEP3203K3178	UNDER COVER LEFT			1
130	WEP596K0457	RIVET			12
131	WEP2110K0447	RIVET			2
132	WEP3200K0567	INSULATED TIE OS170-FT7			2
133	WEP005W8527	INSULATED TIE LARGE			5
134	WEP760L0157	GUIDE ROLLER ASSEMBLY			2
135	WEP3203L2118	MAIN PCB			1
136	WEP3203L3188	PCB COVER			1
137	WEP780L0447	COVER CLIP			1
138	WEP3203K2088	CONNECTING CORD FOR POWER SOURCE			1
141	WEP3200L0047	MAIN FRAME			1
142	WEP3200L0317	SAHFT			1
143	WEP3200L0097	PROTECTION COVER RIGHT			1
144	WEP3200L0107	PROTECTION COVER LEFT			1
145	WEP3200S9547	SCREW(CUP.S.M4-18)			2
146	WEP3200L0457	SNAP RIVET(SR-5055)			4
147	WEP3203L4538	UP/DOWN GEAR BLOCK			1
148	WEP3200L0377	UP/DOWN SHAFT			1
149	WEP596L6057	UP/DOWN SHAFT BOLT			2
150	WEP3200L3537	FITTING			2
151	WEP3200L1457	GUIDE ROLLER C BLOCK			1

Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
152	WEP545H1937	GUIDE ROLLER B			2
153	WEP2200L1907	PINION C SPRING			1
154	WEP578AL0317	RUBBER RING			2
155	WEP3200L1447	PINION C			1
156	WEP3200L1477	GUIDE ROLLER B BLOCK			1
157	WEP3200L0427	PINION B			1
158	WEP3200L1417	UP/DOWN WORM WHEEL			1
159	WEP2200L0337	UP/DOWN SHAFT HOLDER B			2
160	WEP3203L4378	UP/DOWN MOTOR BLOCK			1
161	WEP3200L0187	GROUND WIRE A			1
162	WEP3200L2187	UP/DOWN SENSOR			1
163	WEP3200L1397	UP/DOWN SENSOR GEAR			1
164	WEP3200L1847	UP/DOWN SENSOR PLATE			1
165	WEP3200L1767	UP/DOWN GEAR BOX A			1
166	WEP3200L1797	UP/DOWN GEAR BOX B			1
167	WEP3200L0227	UP/DOWN SHAFT PLATE			1
168	WEP3203L4608	INTENSITY SHAFT BLOCK			1
169	WEP3200L2197	BODY PRESSURE SENSOR			1
170	WEP3203L1048	INTENSITY MOTOR BLOCK			1
171	WEP3200L0197	GROUND WIRE B			2
172	WEP3200L1787	INTENSITY GEAR BOX B			1
173	WEP3200L1777	INTENSITY GEAR BOX A			1
174	WEP3200L0237	INTENTISTY SHAFT PLATE			1
175	WEP3200L1487	INTENSITY SHAFT BLOCK			1
176	WEP3200L0407	WIDTH STOPPER			2
177	WEP596L9137	SCREW(CUP.2.K4-14)			2
178	WEP3200L1377	INTENSITY WORM SHAFT			1
179	WEP3200L1167	BUSHING			2
180	WEP3200L1177	SPRING SLIDE PLATE			1
181	WEP3200L1207	STOPPER RING			1
182	WEP3200L1187	COUPLING			1
183	WEP3200L1217	SPACER(0.6)			2
184	WEP3200L1227	SPACER A			2
185	WEP3200L1247	SPRING			4
186	WEP3200L1237	SPACER(17.2)			1
187	WEP3200L1197	SPRING			1
188	WEP3200L4957	INTENSITY SENSOR			1
189	WEP3200L1857	INTENSITY SENSOR PLATE			1
190	WEP2200L1107	WIDTH BELT			1
191	WEP3203L4048	WIDTH MOTOR BLOCK			1
192	WEP3203L2268	INTENSITY SENSOR PLATE			1
193	WEP3203L4038	TAPPING MOTOR BLOCK			1
194	WEP3203L2278	REVOLUTION SENSOR			1
195	WEP3200L1867	REVOLUTION SENSOR PLATE			1
196	WEP3200L6997	WASHER			1
197	WEP3200L2137	WIDTH SENSOR			1
198	WEP3200L1877	WIDTH SENSOR PLATE A			1
199	WEP3200L1887	WIDTH SENSOR PLATE B			1
200	WEP3200L0167	WIDTH SENSOR SPRING			1
201	WEP3203L2288	WIDTH SENSOR PLATE			1

Ref.No.	Part No.	Part Name & Description	Remarks		Per Unit
202	WEP2200L3417	UP/DOWN BELT			1
203	WEP3203L4638	WIDTH SHAFT BLOCK			1
204	WEP3203L4028	TAPPING BLOCK			1
205	WEP3200L0207	ECCENTRIC LING PLATE RIGHT			1
206	WEP3200L0217	ECCENTRIC LING PLATE LEFT			1
207	WEP3200L0157	ARM PULLING SPRING			2
208	WEP3203L1788	BACK VIBRATOR(RIGHT)			1
209	WEP3203L1798	BACK VIBRATOR(LEFT)			1
210	WEP2110L0367	SNAP PIN SSP-5			1
211	WEP3203L3858	HEAD PROTECTION COVER RIGHT			1
212	WEP3203L3868	HEAD PROTECTION COVER LEFT			1
213	WEP3200L9657	SCREW(S.M5-38)			4
214	WEP2000L9567	SCREW(CUP.S.K4-10)			32
215	WEP596L9647	SCREW(B4-35)			2
216	WEP596L9537	SCREW(2.K4-25)			4
217	EP2200L9677	SCREW(S.M4-40)			2
218	WEP3200L9677	SCREW(CUP.S.K4-30)			1
219	WEP3200L9517	SCREW(S.M4-45)			5
220	WEP2200L9697	SCREW(P.T4-16)			6
221	WEP760N9607	SCREW(K4-10)			2
222	WEP590L6017	SCREW(CUP.S.K3-6)			5
223	WEP573L6627	SCREW(CUP.S.K.4-6)			16
224	WEP2110L0427	RIVET 21M2			4
225	WEP3200L0437	PLATE STOPPER RIGHT			1
226	WEP3200L0447	PLATE STOPPER LEFT			1
227	WEP3200L0417	PLATE STOPPER COVER			2
228	WEP3200L0387	PROTECTION CLOTH			1
229	WEP3200K0457	BRUSHCLIP			1
230	WEP3200L0037	PCB INSTALLATION BOARD			1
231	WEP3200L0517	PCB SPACER			2
232	WEP2000L6967	BUSHING FOR PCB			2
233	WEP3203L3878	MASSAGE MECHANISM COVER			1
234	WEP005W8537	INSULATED TIE MEDIUM T30R/SF			1
235	WEP005W8517	INSULATED TIE MEDIUM			2
236	WEP005W8507	INSULATED TIE SMALL			2
	WEP3203L4018	MASSAGE MECHANISM BLOCK			1
	WEP3203K8008	PACKAGING			1
	WEP3203L8108	INSTRUCTION MANUAL			1
	WEP3203L8098	ASSEMBLY MANUAL			1
	WEP3203L8238	USAGE SHEET			1

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